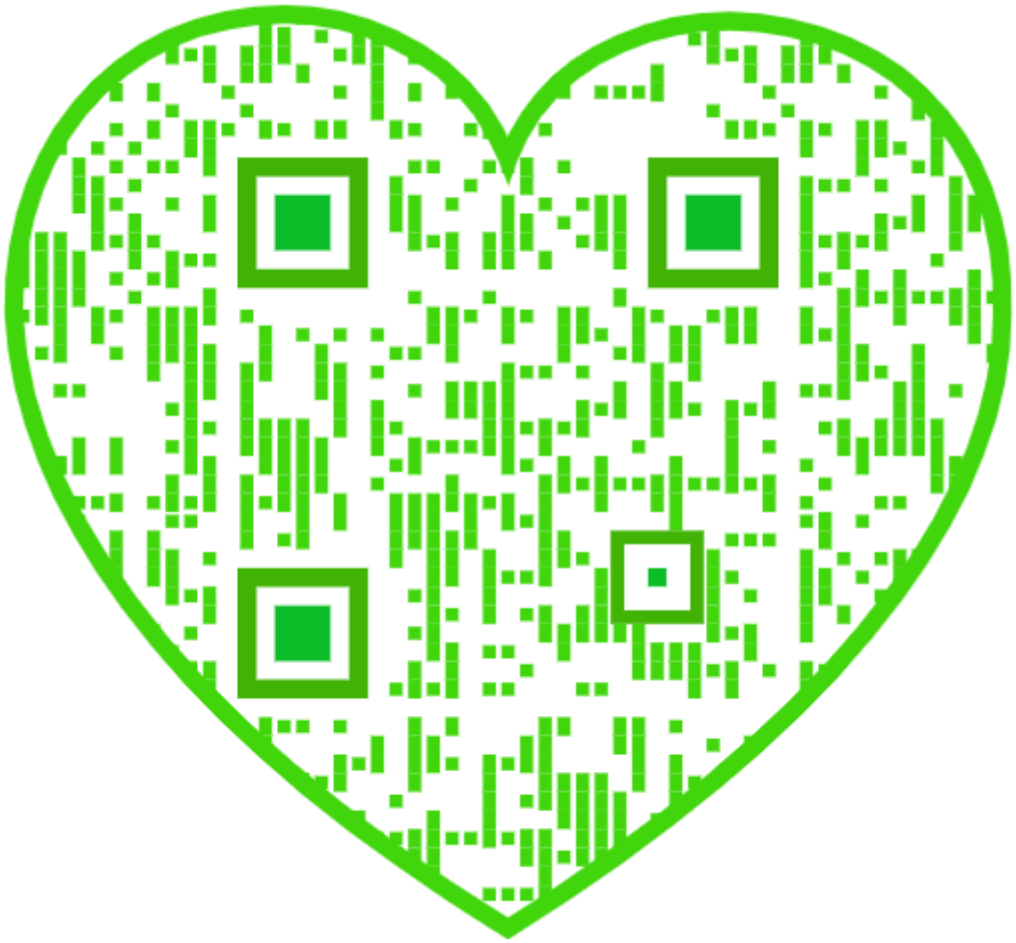

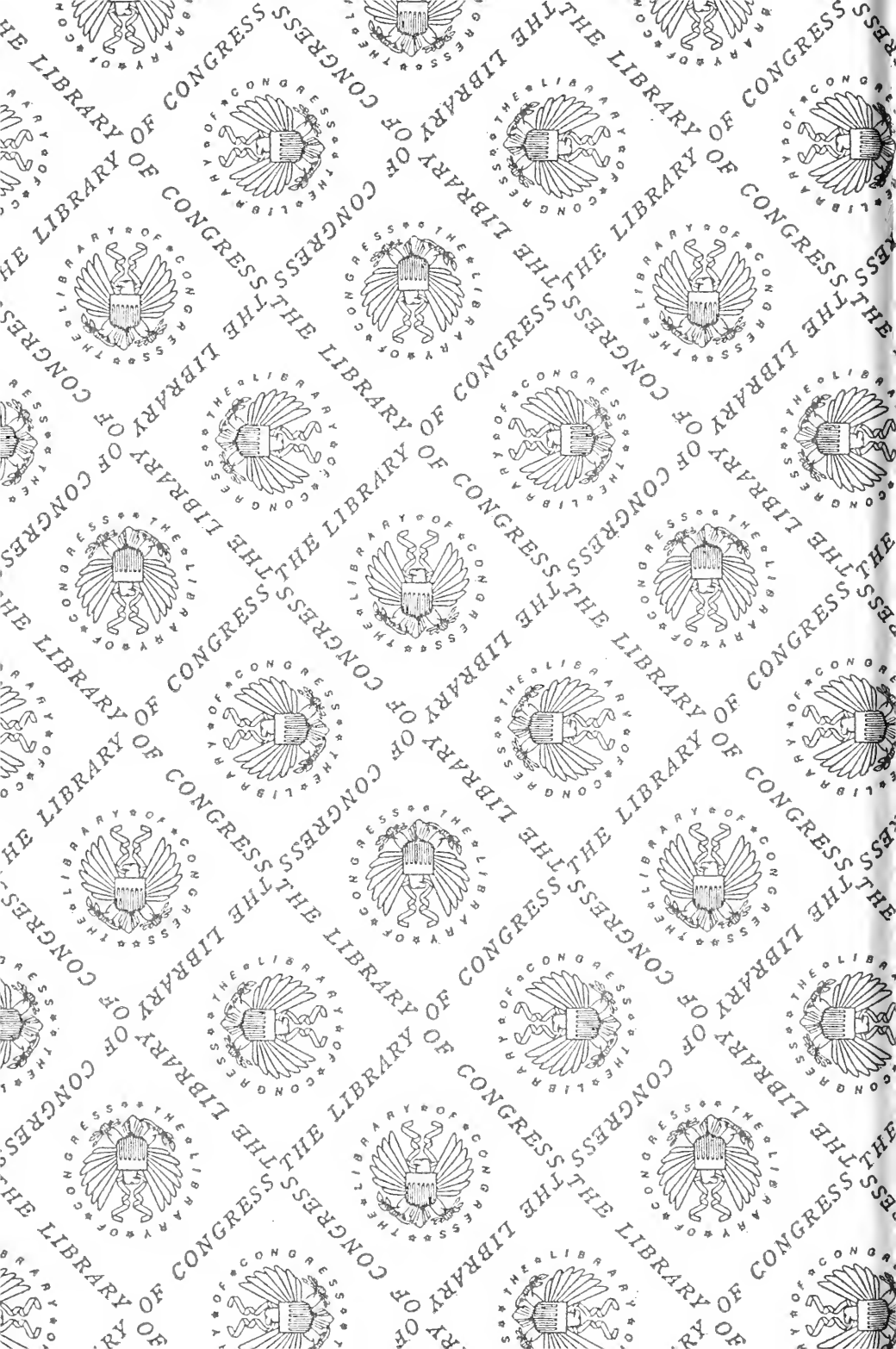
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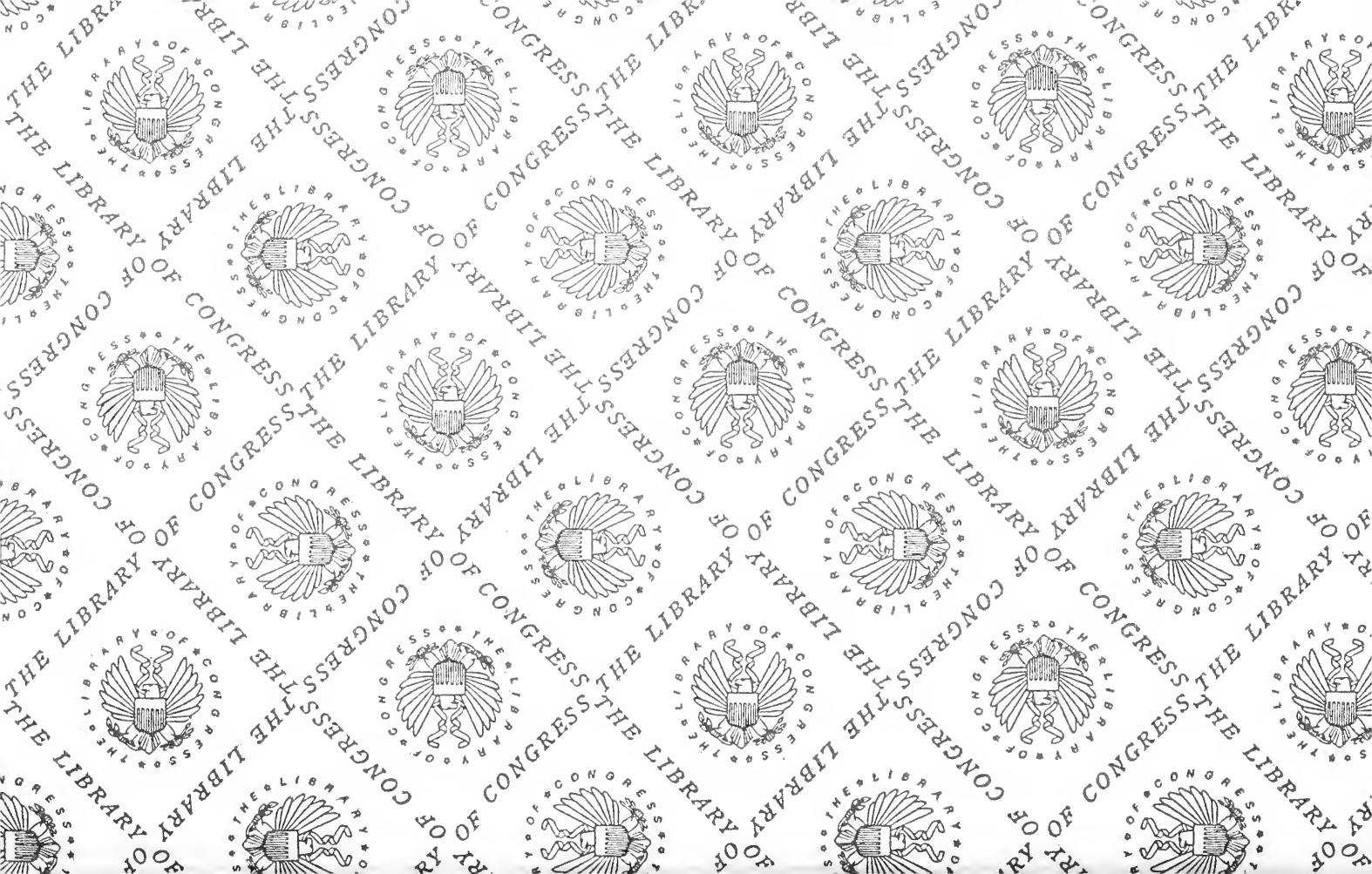
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ELEMENTS OF ECONOMICS

ELEMENTS OF ECONOMICS

BY

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PREFACE

This book is designed to be an introduction to the science of economics. Technical discussions and difficult terminology have been avoided. The author has endeavored to write a book of practical value to the student, but is convinced that any practical work must be founded upon sound theory.

There are many economic questions upon which there may be differences of opinion. Both sides of most disputed questions are given. Students should be encouraged to draw their own conclusions after weighing the evidence.

While the experience of most teachers of economics has convinced them that one book should be followed as a guide, students should read references in other works. Fortunately there are many excellent books—perhaps too difficult in parts for the beginner—containing many chapters that can be read with profit by even an immature student. Among many works suitable for reference purposes the following are especially recommended: Bulloch, *Introduction to the Study of Economics;* Carver, *Principles of Political Economy;* Ely, *Outlines of Economics;* Fetter, *Principles of Economics;* Seager, *Introduction to Economics;* and Turner, *Introduction to Economics.*

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To Richard T. Ely, the author is indebted for the use of a selection from *Problems of Today*, a work which is now unfortunately out of print.

To Professor E. E. Proper, of the Bay Ridge High School, Brooklyn, and to Miss Amanda Edson, of Emerson Hall, Brooklyn, the author is indebted for helpful suggestions. Grateful acknowledgment is made to Mr. H. K. Twitchell, President of the Chemical National Bank of New York, and Mr. G. Foster Smith, President of the Nassau National Bank of Brooklyn, for assistance in the chapters on credit and banking.

A. G. FRADENBURGH.

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ELEMENTS OF ECONOMICS

THE ELEMENTS OF ECONOMICS

CHAPTER I

THE NATURE OF ECONOMICS

Economics treats of man in his relation to wealth. It tells how men make a living and how they may make a better living. It is concerned with the production of wealth, how wealth is divided among the various members of the community, and how wealth is used. It has also to do with plans for a larger production of goods, a more equitable distribution, and a more rational and more economic consumption.

Not many years ago the subject was called Political Economy. Some authors still prefer this title, but Economics is the more appropriate term, inasmuch as many subjects discussed in economics are not at all political.

The Social Point of View.—Most people consider their own economic well-being as of first importance. This is natural. The economist, however, looks at all things from the social point of view, that is, "the greatest good to the greatest number." The individual economic interest is often opposed to the social interest. For example, a few years ago the Louisiana State Lottery was a profitable enterprise for a small group of men. Its operations were opposed to the economic interests of a majority of the

people of Louisiana and of the nation and to the moral interests of all. The State of Louisiana, in refusing to permit the company to continue in business, rendered an economic as well as a social service. Then, again, the owners of a cotton-mill might benefit by employing child labor, but the public would not benefit.

Economic Dependence upon Others.—In earlier times every family was, to a large extent, independent of every other family. It produced its own food, made its own clothing, and lived in its own house supplied with water from its own well and lighted with candles made from the tallow of its own sheep. Such was the condition in America during colonial times.

Now all is changed. No one is economically independent. Each of us renders some service or produces some commodity for others and receives payment in money with which to purchase the goods we need. Recently a popular magazine showed, even for a simple meal, our dependence upon others:

"The pepper came from ten thousand miles away. It grew on a little bush about eight feet high, which must have had a growth of at least five years. The pepper was picked green, it had to be dried in the sun, and this meant employing women. It took one ship and a thousand miles of railroad to bring the pepper to the United States. The tea on the table came from China and the coffee from South America. The codfish had to be brought from Maine. Men had to be employed to catch the fish; other men and women were employed in drying, packing, and boxing it, and it, too, had to make a long railroad journey. The flour of which the bread was made was grown in

Dakota; some one owned the land, and that meant the investing of capital; and then he had also to pay wages to working men. The wheat had to be ground, and the building of the mill and the plant, or machinery, meant more money invested. The millers had to be paid; coopers had to be paid for making the barrels; and, of course, the wood of which the barrels were made had to be cut and sawed and shaped, and this meant the employing of more men. Then the flour had to be shipped over the railroad and handled again by cartmen before it came into the house. The salt came from the Indian Reservation in the northwestern part of New York State. The canned peaches came from California, and they too represented the employment of capital and labor. The spices in the cake came from the Spice Islands in the Indian Archipelago."

The only items on the table which could be produced within the county where the meal was eaten were corn bread, butter, and buttermilk. It is estimated that the little meal represented directly or indirectly the employment of five hundred millions of dollars of capital and of five millions of men.

The Organic Nature of Society.—Our dependence upon others has caused society, which includes all of us, to be regarded as an organism, just as the human body is an organism. Some parts of this social organism do one thing and some another. The services of each part are necessary to the welfare of the whole. Suppose, for example, the railroads fail to bring us food and fuel. Then the whole social organism suffers. Just as the human body cannot do its work if the nervous system is out of order, so

society depends upon its nervous system—the telegraph and telephone lines. We are truly our brother's keepers.

The Subject-Matter of Economics.—Economics deals with subjects in which every one is interested. Such subjects as the protective tariff, public ownership of railroads, money and banking, stocks and bonds, labor problems, and monopolies are of concern to each of us. The main object in the study of economics is to teach us to think correctly on economic questions.

Economics and Other Sciences.—Every science is in some way related to economics. For example, arithmetic is used in the conduct of the smallest business. The higher mathematics are employed by surveyors, architects, mechanical and electrical engineers. Statistics form the scientific basis of the life-insurance business and are used by business men in calculating costs and determining the results of advertising campaigns. Chemistry and physics must be known by the scientific farmer as well as by those who engage in manufacturing. Among the social sciences sociology and history are most closely related to economics. Sociology is the science which treats of man in his relations with his fellow men. Economics may be considered as that branch of sociology which has to do with how men make a living. History is of such importance to economics that every historian must be something of an economist and every economist must be well versed in history. The English historian Freeman once said that "History is past politics and politics is present history." Many modern historians would also say that history is past economics and economics is present history.

The Divisions of Economics.—Economics may be regarded as consisting of three sections: (1) Consumption of wealth, (2) production of wealth, (3) distribution of wealth.

1. The consumption of wealth deals with the use or using up of goods. Some goods, like edibles, are used in one process and are known as perishable goods. Others, like a house, may be used for many years and are known as durable goods.

2. Production has to do with making things ready for use. Nature furnishes raw material, but man must gather it and prepare it. The relation between production and consumption of wealth is close. Goods are produced in order that they may be consumed. Demand results in goods being supplied. But a supply sometimes creates a demand. The desire for a means of flying led to the invention of the airplane, but the production of airplanes produced a demand for them among persons who had never before considered the possibility of flying.

3. Distribution deals with the incomes which the various members of society receive. Rent, wages, interest, and profits are the subjects discussed in considering the distribution of wealth. Most of the great economic questions of to-day refer to distribution. For example, the interests of labor and capital are identical in the production of wealth. Both are interested in a large production, for the more produced the more there will be to divide; but when it comes to distribution their interests often seem to clash. The capitalist thinks the laborer wants more than his just share, and the laborer thinks the capitalist is the offender, and often both condemn the landlord as a con-

scienceless profiteer. To secure such a distribution of wealth as will be most fair to all parties is an economic ideal toward which progress is being made.

Economic Motives.—Men are impelled to work by a variety of motives and these motives are found in different proportions with different men. Self-interest is a powerful motive to induce men to work, but this is usually an enlarged self-interest. The pleasure of a night at the opera is more than doubled by sharing it with another. The same is true of a trip to Europe, an automobile ride, or anything that can give pleasure to a member of the family or to a friend. The phrase "economic man" was coined to describe a man wholly influenced by his own selfish interests. Such a man, if he ever existed, has fortunately been rare. The normal man works that he may secure necessities, comforts, and luxuries for himself and that he may provide a competence which will support him in ill fortune and in old age. But what he wishes for himself he doubly wishes for his wife and children and others dependent on him.

Social esteem is also a powerful motive. Men like to be well thought of in the community in which they live and will shun employments which their friends and companions regard as dishonorable or degrading. Social esteem explains why girls prefer to work in a factory rather than as domestic servants, even though the hours of labor and other conditions may be equal. The profession of law is held in high esteem, and every lawyer wants to be successful not only because of the income which success will insure but because of the standing his profession will afford him in his community. A successful lawyer wants to be-

come a judge, though his income as a judge may be much less than he could obtain as a lawyer.

Another motive to economic activity is the desire for employment. For real men and women a certain amount of activity is pleasurable. For them loafing is the hardest kind of work. Many a man keeps at work because he likes to be employed when it is no longer necessary for him to work.

The instinct for association is another motive for activity. People want to do what others are doing, and in the United States, where most people are working, it is the fashion to work. In some countries, where there is a large leisure class and where work is not held in such high esteem, a part of the population finds association in idleness.

Altruism, or the desire to help others, causes economic activity among many of our people. Either impelled by religion or ethics, most people want to leave the world better than they found it. They work and accumulate riches in order that they may endow colleges or hospitals or do some service for mankind. This motive is not confined to the very rich. Many a day-laborer, during the period of the war, gladly worked overtime for a season in order that he might make a contribution to some of the war charities.

Summary.—Economics is a science which deals with man in his relation to wealth. Society may be regarded as an organism and every person has a service to perform for the common good. All persons who can work and do not, are not only hurting themselves but are injuring society. Every science has some relation to economics, but history and sociology are especially helpful. From history we learn the experience of men and can avoid the mistakes

and profit by the successes of those who have preceded us. Since the economic life of man is closely related to his other activities, sociology is helpful to the student of economics. For convenience in treatment, economics is divided into three sections: (1) The consumption of wealth, (2) the production of wealth, (3) the distribution of wealth. Each section is closely related to the others. Some economists prefer to begin the discussion of our science with the production of wealth; others with the consumption of wealth. Many motives impel men to work. Among the more important are self-interest, the desire for social esteem, the pleasure that comes from being employed, the instinct for association, and the desire to help others.

TOPICS FOR DISCUSSION, DEBATE, AND SPECIAL REPORTS

1. What is a science? Is economics less of a science than mathematics? How do the social sciences differ from the physical sciences?
2. Give some illustrations of the conflict between individual and social interests.
3. Show how you are dependent upon others for the materials used in your classroom. How many men do you suppose contributed toward making your classroom what it is?
4. We have mentioned in the text five motives which impel men to work. See if you can find any other motives which influence some men.
5. Which motive do you think is the most important? Do the same motives appeal in the same proportion to a lawyer and a teacher? To a farmer and a clergyman? To a missionary and a pawnbroker?
6. Professor F. A. Fetter of Princeton University speaks of men

being influenced to work by their desire to serve the public. Their reward is largely in "their own consciousness of duty well performed." This reward he calls "psychic income." Give an illustration of psychic income that has come to some persons in your community. What psychic income have you received?

7. Some economists say that society is an organism. Others prefer to say that society is like an organism. Which expression do you prefer? Why?

CHAPTER II

SOME CHARACTERISTICS OF MODERN ECONOMIC SOCIETY

Private Property.—In modern times most property is owned by private persons. People care for the things which they can call their own. A man who owns his own home has a pride in its possession. He has a personal interest in his city and in the street on which he lives. This makes for good citizenship. Private property exists because it is to the interest of most people that it should exist.

Private Enterprise.—As with property so industry is chiefly in private hands. Agriculture, manufacturing, mining, transportation, professional services, and banking are as a rule private enterprises. In some foreign countries the State owns and operates the railroads, engages in the banking business, manufactures and sells certain goods, but even in these countries most industries are privately owned and operated.

Though private property and private industry are the rule, there is everywhere a certain amount of public control. For example, corporations, before they can do business, must meet the conditions prescribed by law. Factories must be run in accordance with the sanitary code and the legal requirements of labor. Rates charged by public-service corporations must not exceed legal rates. Food products must be clean and properly labelled. Nui-

sances and illegal business are forbidden. Certain professions like medicine, dentistry, and law cannot be practised unless a state examination be passed. Such regulations are in the interest of private persons, who would otherwise be unable to protect themselves against dishonest and grasping employers or incompetent professional men.

Inheritance.—Closely associated with the right of owning property is the right of disposing of property. During the life of the owner there is no restriction in his power to sell his property, except that in most states a married man cannot sell land without his wife's consent. However, his power to dispose of property after death is limited by all states. The law prescribes how wills must be made and makes provision in regard to the disposition of property in the absence of a will. In most states a man cannot disinherit his wife, and his minor children have rights that must not be ignored. In America, unlike England, land must not be left in entail, as it is called, if a will prescribes that an estate shall pass to a certain class of heirs, like the eldest sons, through all future time.

Vested Rights.—Vested interests are rights which cannot be disturbed unless the owners of these interests receive compensation. They usually exist in property or contract. Vested rights were everywhere in evidence in feudal times, extending even to offices. Professor R. T. Ely gives several survivals of mediæval vested rights: "Leeds was compelled by a feudal arrangement to grind its corn, grain, and meal at the lord's mill till well on in the last century, and finally had to pay £13,000 to terminate these obligations! When Prussia bought the railroads, the railway presidents were indemnified for the loss of their posi-

tions by large payments; in other words, their offices were looked upon as vested interests. England is the classic land of vested interests. An office in the army was until recently looked upon as such, and so was an appointment in the established church." In the United States vested interests have never played so important a part as in Europe, doubtless because America never passed through a feudal régime. When the XVIIIth Amendment to the Constitution of the United States deprived them of the value of much of their property without compensation, the distillers and brewers advanced the claim that their vested rights were violated. However, the claim was not allowed. Street railroad companies in their competition with motor busses have sometimes been regarded as possessing vested interests which protect them.

Division of Labor and Exchange.—As has been said, most of us produce one commodity or part of a commodity, or render some personal service. We are paid in money and then we exchange our money for the things we want. Every one of us is dependent upon others. Even the lonely backwoodsman who gets his living by hunting and fishing is dependent upon thousands of others for his rifle, sugar, tobacco, coffee, and clothes.

Freedom of Labor.—Laborers are free to move from one part of the country to another and may choose whatever employment they prefer. Under normal conditions laborers seek the most remunerative opportunities open to them. If any trade or profession is overcrowded the pay to those engaged in it will fall and the workmen will seek other employments. So on the other hand if a great demand exists for some service or commodity, the remunera-

tion for those providing it will rise high enough to attract the laborers who are needed. For example, when the World War began, the high wages offered by manufacturers of munitions of war attracted laborers from other factories and from the farms. When the war closed, the demand for munitions ceased and labor sought other employment.

Freedom of Capital.—Also there is freedom to invest capital in most industries. Large profits in any industry attract new capital to that industry. Small profits result in capital seeking other industries. The tendency is, therefore, for profits to become uniform in all industries. For example, a few years ago those who were engaged in the making of automobiles enjoyed large profits. This attracted capital into the automobile industry and competition between manufacturers lowered the price of cars and profits diminished.

Restrictions on Freedom of Labor and Capital.—This freedom of labor and capital has not always existed. Until after the French Revolution, which began in 1789, both labor and capital were so restricted in France as to prevent laborers from moving from place to place, and capital was subject to many restrictions. Similar limitations on the freedom of labor and capital existed in other countries.

After the French Revolution the old restrictions on labor and capital were removed, but some new ones came into existence. The old restrictions upon labor were in the interests of the employers; the new ones were in the interest of the laborers. Laws limiting the hours of work, requiring one day of rest each week, prohibiting child labor, pro-

tecting the workman from dangerous conditions are examples of restrictions that are advantageous to the laborers.

Freedom to engage in some employments is restricted by law. Capital cannot be invested in industries which produce goods for harmful purposes. The manufacture and sale of intoxicating beverages is restricted in the United States. Other industries, like the post-office, may be operated only by the government. Exclusive patent and copyright privileges limit competition in certain industries. All these restrictions are made because they are in the interest of the people.

Though there is legal freedom to engage in most lines of business, this freedom may be restricted in other than legal ways. Capital seldom ventures into a field monopolized by some powerful corporation or combination of corporations. As an illustration we may take the meat-packing industry of the United States. Many millions of dollars are invested by each of the packing companies and each has built a great business with agencies throughout America. Capitalists would hesitate before entering the meat-packing industry because that field is already occupied by powerful corporations.

Competition.—The prevalence of competition in all industry is well illustrated in the following quotation from Professor Fairbanks's *Introduction to Sociology:* "The manufacturer of cotton goods chooses between competing places for his factory; the makers of his machinery are vying with each other to produce most economically the engines, looms, etc., that are best adapted to his work; raw products he buys from sellers competing in the open

market; labor he hires from among men who bid against each other for his work; transportation companies compete with one another in cheaply transferring his goods to market; and in the market, seller is struggling with seller for the privilege of a sale with profit; buyer and seller bargain together, to agree on a price. The present century has seen barrier after barrier swept away, till the whole world enters more or less freely into one struggle; family and social distinctions are being obliterated in the industrial world; customs and laws in restraint of trade have been set aside."

At its best competition seeks to render a better service at a lower price. It eliminates the incompetent and lazy, and this is a social service. Competition does not necessarily lead to monopoly, as business ability and resourcefulness are not limited to a few. Fair competition is a "live and let live" competition, but there is also an unfair competition which seeks to drive its rivals out of business by any means, fair or unfair. Misrepresentation by a rival, securing trade secrets by bribery of employees, "planting" a man in a rival's establishment to secure knowledge of his business, and temporarily lowering prices below the cost of production to drive a rival out of business are all examples of unfair competition. In many states local laws are directed against unfair competition and the Federal Trade Commission is empowered to prevent unfair competition by those engaged in interstate commerce. Fair competition is the rule in America. Most business men treat their competitors as they expect to be treated. An unfair competitor is soon discovered and finds that fair competition is the best policy. Business ethics is

nowhere higher than in the United States, and probably was never so high as now.

Monopoly. — Various corporations producing similar goods may unite. If the combination controls all or a great part of the production it is a monopoly. Some monopolies exist because of the control of the source of supply. An example of this is the anthracite coal monopoly. Others exist because of ownership of patents, and some others owe their existence to the fact that the services they render can best be supplied under monopoly conditions. Examples of this latter class are the gas companies and other public-service corporations.

Custom.—Custom plays an important part in economic life. We become used to a certain standard of living and wish to hold to it. For example, custom prescribes that some people shall take a two weeks' vacation in the summer, that they shall give and receive presents at Christmas, or that a new hat be bought for Easter. In many communities merchants are accustomed to subscribe definite sums each year to local charities. In parts of the South custom prescribes that certain occupations shall be followed by negroes exclusively.

Retail prices are governed largely by custom. People pay the traditional price and buy in the usual quantities. Customs are not the same throughout the country. In some cities it is customary to buy groceries in small quantities, and potatoes are sold by weight; in other parts of the country potatoes are seldom sold in smaller quantities than a peck. Custom causes white eggs to command higher prices in some cities than brown eggs, but in other cities brown eggs are preferred. In France it is the cus-

tom of the peasants to save something each year and to invest the savings in stocks and bonds.

Every one of us is influenced by custom. Some customs are good, others harmful. Economic progress comes from acquiring good economic customs and changing bad ones.

Summary.—Private property is the rule in modern industry. This is because it is to the advantage of most people. Some industries are owned and operated by the people through their representatives. For example, the postal service of the United States is owned and operated by the national government and most cities own and operate their waterworks. Whether any kind of business should be publicly or privately owned depends upon which method will serve the people better. As a rule people may enter any kind of business they wish, but in some professions there are legal restrictions to prevent incompetent men from doing business. For example, men may not practise medicine until they satisfy the state authorities that they possess the proper qualifications. Competition is the rule in most business enterprises. Competition is beneficial when it is a fair competition, but it is subject to abuse. State and national laws exist to check unfair competition and to encourage fair competition. Monopoly is the absence of effective competition.

Custom plays a large part in the life of every one of us. We eat fish on Friday and chicken on Sunday, go to a ball-game on Saturday afternoon, and read the morning paper every day. These are customs, and each has an economic influence.

TOPICS FOR DISCUSSION, DEBATE, AND SPECIAL REPORTS

1. Sociologists say that most people should try to own their own homes. Do you agree? Why? What agencies are there to help people own their own homes? Why do more people own their own homes in Philadelphia than in New York? In Indianapolis than in Chicago? In the country than in the cities?
2. Should the amount of inheritances be limited by law? If so, what should be the limit? Show some instances in which inherited property has been a benefit to the recipient and to society. Show some evils that have resulted from inherited property.
3. Why should a man be compelled to pass an examination before he can practise medicine? Why should he not be required to pass an examination before opening a grocery store? Many states require a year or more study in college before a person may begin the study of medicine in a medical college. Is this a reasonable restriction? Why?
4. Give some examples of customs that have an effect upon economic life in your community. What customs are beneficial to the community as a whole? What customs are harmful?
5. What are the economic results of the custom of giving presents at Christmas? What considerations other than economic ones enter into the giving of Christmas presents?

CHAPTER III

WANTS AND THEIR SATISFACTION

Elementary Wants.—The most elementary wants for every one of us are food, drink, clothing, and shelter. Man shares these wants, except clothing, with the animals. Primitive men were satisfied with the simplest things. With an increase in civilization the elementary wants became refined. Food and drink must be clean and attractively served. Clothing and shelter must be pleasing to the eye.

Cultural Wants.—Every advance in civilization has brought new wants. An ability to read develops into a desire to read and appreciate the best literature, not only in one language but in several. A love of music, once satisfied by the beating of tom-toms or a jazz band, becomes a love for symphony concerts, or other forms of music which are really music to a cultured taste. A multitude of wants arise, such as travel, study, art, and social service. Fortunately these wants can in many cases be supplied even to those whose wealth is very limited, and culture does not always vary directly with a person's increase in wealth. It is a well-known fact that in the great opera-houses, the poor man in the gallery often more keenly enjoys the performance of a grand opera than does the occupant of an orchestra seat. The want of religious consolation, present in an elementary way in a savage, becomes to many persons of refinement, a most important

want, and for its satisfaction vast sums of money are expended.

As old wants are satisfied, new ones appear. Were this not the case, life would hardly be worth the living. We no sooner, for example, learn the use of a rowboat, than we want a sailboat, then a motor-boat. Seeing others receiving pleasure incites us to desire to imitate them. It was a brave man who ate the first raw oyster, but he gave indications of enjoyment and soon eating oysters became popular.

Education causes a host of wants to arise. The study of literature causes the desire to own books and to subscribe for a literary magazine; a growth of the artistic sense prevents one from being satisfied with the crude art of the Sunday papers and leads to a desire to possess reprints of works of art. The educational process is to a large degree the refinement of old wants and the creating of new ones.

Advertising Creates Wants.—Advertising not only tells us where goods may be obtained, it also creates a desire to possess these goods. A new automobile, operating on a new principle, is advertised and at once some persons want to see it and, if the demonstration is satisfactory, to secure one. The newspapers announce a new breakfast food and the billboards blazen its catchword, and thousands buy it to see what it is like.

Goods.—Whatever satisfies a human want is a *good*. Its want-satisfying capacity is called *utility*. All goods are known as wealth, and the term is not limited to great riches. The peddler's cart is wealth just as much as is the millionaire's automobile. Personal services such as those of a physician satisfy wants and are utilities.

Free Goods and Economic Goods.—Some goods are furnished in such quantities by nature that there is enough for all and to spare. These goods are known as *free goods*. Air and water are examples of free goods. Free goods decrease in number with growth of population and fuller occupation of the land. In colonial times wood for fuel was so abundant that any one could have it who would take the trouble to cut down a tree; game was plentiful and was often given away. *Economic goods* are limited in amount and are secured only after an effort. Under certain conditions goods which are usually free goods may become economic goods and vice versa. Water, if it become so scarce as to be difficult to obtain, may be an economic good. An unusually large crop of apples, where shipping facilities are lacking, may make apples so abundant as to be free to any one who desires them.

The Consumption of Goods.—The consumption of goods means the using up or destroying their utilities. Some goods are destroyed in satisfying a single want; such goods are known as *perishable goods*. Other goods, like a wagon, may satisfy many wants before becoming unserviceable, and such goods are called *durable goods*. Few goods are absolutely durable, though land might be so called in some respects, as its supporting power is not destroyed, though every farmer knows that if it is not enriched at intervals its productive power wears out.

Present and Future Goods.—Future wants are usually less highly regarded than present wants, and finished products which are able to satisfy a present want are more highly esteemed than goods which will be available for use only at some future time. Most persons would prefer

$100 at the present time rather than $100 six months from now. The future is always uncertain; of the present alone we may be sure.

Useful and Harmful Consumption.—Any use of goods which aids a person physically or morally is a useful consumption. For example, if a laboring man spends a Saturday afternoon at a ball-game and comes home with his nerves rested and a good appetite for dinner, the time and money may have been spent to advantage. A night of dissipation on the other hand leaves a man unfit for work the next day and is not an economic use of time or money. The spending of money upon harmful drugs or whiskey is uneconomic because the use of these articles reduces ability to work, but reasonable expenditures for recreation of a wholesome kind increase ability to work and are therefore economic.

Public Wealth.—Our wants are satisfied not alone by the possession of private property. Public property satisfies many wants. Public roads, parks, bridges, art galleries, museums, schools, and hospitals are examples of public wealth. Another variety of public wealth is such natural wealth as rivers, lakes, harbors, and public forests. Public wealth belongs to all of us collectively, and it should be a matter of concern to all citizens that public property should not suffer at their hands and that they do not allow others to injure it without their protest. To disregard signs requesting people not to walk on the grass, to injure shrubbery in a park, or carelessly to cause a forest fire are offenses which a good citizen never commits.

Summary.—Elementary wants are those for food, drink, clothing, and shelter. Even primitive men had these

wants. As civilization increased these wants became refined and cultural wants appeared. Wants are satisfied by goods and services. Some goods are furnished by nature in such abundance that they are free to all men. Others are limited in quantity and an effort is required to secure them. These goods are economic goods. In satisfying wants goods are consumed. Goods that are destroyed in satisfying a single want are perishable goods. Goods that satisfy a series of wants are durable goods. Useful consumption of goods is any use of goods which gives pleasure or satisfaction without harm to the body or mind.

TOPICS FOR DISCUSSION, DEBATE, AND SPECIAL REPORTS

1. Why are breakfast foods and crackers usually sold in boxes rather than in bulk? Is the extra expense justified?
2. Show that a man's place in the scale of civilization is determined by the nature of his wants.
3. Even a savage enjoys music, but we are told that the best music is appreciated only by those who have a cultivated taste. How does a jazz band compare with a symphony orchestra? What agencies for the promotion of good music exist in your community?
4. Give some examples from your own experience of goods which are ordinarily economic goods becoming free goods. What goods which were once free goods in your community are now economic goods?
5. Under what circumstances may it be an economic expenditure of time and money to attend a moving-picture show? When would it be uneconomic?

CHAPTER IV

CONSUMPTION OF WEALTH FURTHER CONSIDERED

The Law of Satiety.—At any one time any want is capable of being completely satisfied, or satiated. For example, a person may be exceedingly hungry. A piece of bread would be devoured eagerly and this might be followed by other pieces until the time would come when the desire for bread would be satiated. The *total utility* of the bread to this person would be the utility derived from all the slices he had eaten in satisfying his hunger.

The Law of Diminishing Utility.—The satisfaction from the first slice of bread would be great. Let us indicate it by the numeral 10. The second slice would give less satisfaction, which may be indicated by the numeral 9. Each subsequent slice would be less desired, until the tenth slice would give only a satisfaction which would be expressed by the numeral 1. After consuming ten slices, no more bread is desired, the point of satiety has been reached. The utility of the last piece eaten is the *marginal utility*, that is, the piece which yields the least satisfaction. The following table shows total utility and marginal utility in the illustration of the successive slices of bread:

Units of Bread	Satisfaction Derived
1	10
1	9
1	8
1	7
1	6

Units of Bread		Satisfaction Derived	
	1	5	
	1	4	
	1	3	
	1	2	
	1	1	marginal utility
Total Units	10	Total Utility	55

Of course, if the consumption of bread stopped short of the point of satiety, the total and marginal utility would be otherwise. For example, if only five slices of bread were consumed, as will be seen by the figures, the total utility would be 40 and the marginal utility would be 6. To consume more bread than the ten slices would be positive discomfort, or disutility.

The law of diminishing utility applies to all things. To the lover of music a symphony concert is a great pleasure, but after listening to a concert for two hours, the desire for music is for the time satisfied and additional concerts following at once would be a disutility. The same rule applies to material objects which render a series of satisfactions. One phonograph might be intensely desired; another of the same kind would not be a cause of much satisfaction; while a third would not be wanted in the same household.

The Law of Variety.—Since we cannot have everything we want, we spend our money for those things which we want the most. There is a constant balancing of the advantages afforded by one kind of expenditures over those which might be afforded by another. We must often choose between present wants and future wants. A prudent person who cannot enjoy a summer vacation,

except at the expense of being without coal during the coming winter, will forego his vacation.

Every satisfaction costs something in terms of other possible enjoyments; not only is this the case, but there is a balancing of the pleasure of consumption against the pain, or discomfort, of additional production. By working overtime a person might gain income for increased consumption, but he may decide that the extra effort is not worth while.

The Economic Order of Consumption.—The consumption of a good is seldom continued to the point of satiety; greater satisfaction is afforded by stopping short of the point of satiety in any one good and consuming other goods. Thus if a person had seventy-five cents to spend for his dinner, he would not spend it all upon bread. The more economic order would be to use part for potatoes, meat, coffee, and a dessert. Thus we might divide the seventy-five cents into ten units of 7.5 cents each and the economic order of consumption would be somewhat like the following:

Commodities				
Bread	Potatoes	Meat	Dessert	Coffee
9	10	12	10	9
	9	11	9	
		10		
		9		

In this case 7.5 cents would be spent for bread; 15 cents for potatoes; 30 cents for meat; 15 cents for dessert; and 7.5 cents for coffee. The marginal utility is 9 in each

commodity and the total utility of all the commodities is 98.

Consumer's Goods and Producer's Goods.—Some goods are used to satisfy wants. These are called *consumers' goods*. Others are used in the production of more goods. These are *producers' goods*. Coal which is used to heat a dwelling is a consumers' good; if used to produce power to run a factory it is a producer's good. In a later chapter we shall discuss producers' goods. Consumers' goods may be classified as necessaries, comforts, and luxuries.

Necessaries.—Necessaries are those goods which must be consumed in order to preserve health and strength. There should also be included those goods, which although not necessary in a physical sense, are necessary in order to preserve self-respect. "A linen shirt, for example, is, strictly speaking, not a necessary of life. The Greeks and Romans lived, I suppose, very comfortably, though they had no linen. But in the present time, through the greater part of Europe, a creditable day-laborer would be ashamed to appear in public without a linen shirt, the want of which would be supposed to denote that disgraceful degree of poverty which it is presumed nobody can well fall into without extreme bad conduct. Custom, in the same manner, has rendered leather shoes a necessary of life in England. The poorest creditable person of either sex would be ashamed to appear in public without them. In Scotland custom has rendered them a necessary of life to the lowest order of men, but not to the same order of women, who may, without any discredit, walk about bare-footed. Under necessaries, therefore, I comprehend, not only those things which nature, but those things which

the established rules of decency have rendered necessary to the lowest rank of people." *

Comforts.—The dividing-line between necessaries and comforts is not easy to find. Comforts are not necessary for existence, nor, perhaps, for self-respect, yet most people regard comforts as essential to a reasonable standard of living. A straw hat in August is not a necessity and its absence would not be seriously felt, but most men regard it as almost a necessity. A second suit of clothes may not be a necessity, but would be a comfort. Pictures to adorn the walls and cushions for the chairs might also be classified as comforts, though if unusually fine they might be luxuries.

Luxuries.—Luxury may be defined as any article which ministers to comfort or pleasure, and yet is not necessary to life or to what is regarded as an ordinary degree of comfort. Luxury does not increase one's ability, although the desire to secure luxuries may be a motive to economic activity. The saying is old and true that the luxuries of one generation are the necessaries of the next, which means that increased production makes it possible to satisfy new wants without sacrificing essentials. What is a luxury for one person may be a necessity for another. An old and valuable violin might be a luxury for an amateur, but a necessity for a professional violinist. An automobile is a necessity for many physicians but may be a luxury for a college professor. One class of luxuries deserves condemnation and to this class belong those luxuries which gratify only the sense of vanity and vulgar display.

* Adam Smith, *The Wealth of Nations*.

Luxuries do Not Increase Demand for Labor.—We frequently hear the remark that the lavish expenditure of money for a ball or some other luxury is not without its advantages; it gives employment to labor. This is quite analogous to the oft-heard statement that the burning of a building means that masons and carpenters will now have a job. In the case of the house, society is poorer for the loss of the house, even though the insurance company pays the loss and in this case the insurance company must restrict its investments elsewhere to pay the loss. In the case of luxury there is a demand for the labor which produced the luxury, but the expenditure probably would have been made elsewhere if not for luxury, and even if the money had remained in the bank, the bank could have loaned it for some useful purpose.

This whole subject is discussed most entertainingly by Doctor R. T. Ely.

"Shallow as he was, Frederic Bastiat undoubtedly said many good things, and is entitled to our gratitude for having cleared up, as no one else, some of the first principles of economics. Perhaps one of his happiest efforts was his exposition of the difference in industrial society between that which is seen and that which is not seen. A worthy shopkeeper, Jacques Bonhomme, is enraged because his careless son breaks a pane of glass, while the spectators who gather around the scene offer this consolation to the father: 'It is an ill wind that blows nobody good. Everybody must live, and what would become of the glaziers if panes of glass were never broken.' Who among my readers has not heard similar expressions of opinion? And how many of them are there who do not

feel that there is a certain justice in the view of the indifferent but good-natured spectators? . . .

"Jacques Bonhomme, the shopkeeper, was just on the point of ordering a new pair of shoes for his wife, for which he expected to pay six francs. These shoes he is now unable to order on account of his loss, and the shoemaker misses his opportunity to earn six francs. This is what is not seen, but it is beyond all controversy that no additional employment has been given to labor because the careless son broke the pane of glass. . . . My good friend who spends two hundred dollars on a single dress sees employment given. She does not perceive that if she had given twenty calico dresses to as many poor old ladies, quite as much work would have been given to sewing-women. Extravagance finds no justification on the plea that it gives employment to labor." *

Family Budgets.—A family is, among other things, a business concern and as such it should keep an account of income and expenses. A well-managed family, from a business point of view, will calculate its income and apportion its expenses so that they will fall within the income. This calculating of income and arranging of expenses is called making a budget. A budget should always include savings, and a budget makes savings possible by eliminating much foolish spending. If the average family could see the total amount spent yearly upon matters of little importance, it would speedily effect a reform. Unfortunately few families keep accurate accounts of their expenses; they know some of the great expenses such as those for rent and fuel, but most families could only roughly estimate such

* *Problems of To-Day*, chap. XV.

major expenses as those for food and clothing. Not only are the facts unknown to many families, but the investigator finds that his inquiries are resented.

In 1857, Doctor Ernst Engel, the well-known Prussian statistician, published the result of his investigations in reference to family budgets. The following table shows the facts which Doctor Engel's studies disclosed:

Items of Expenditures	Per Cent of Expenditure of		
	A Laborer's Family	A Middle-Class Family	A Family of Wealth
Food	62	55	50
Clothing	16	18	18
Rent	12	12	12
Fuel and light	5	5	5
	95 per cent	90 per cent	85 per cent
Tools, etc.			
Education	2	3.5	5.5
Taxation	1	2	3
Care of health	1	2	3
Personal service	1	2.5	3.5
	5 per cent	10 per cent	15 per cent

From the above table it will be seen that a German laborer with an annual income of $1,000 might be expected to spend $620 for food, $160 for clothing, $120 for rent, $50 for fuel and light, etc., $20 for education, $10 for taxes, $10 for care of health, and $10 for personal services. A man with an income of $3,000 per year would spend $1,650 for food, $540 for clothing, $360 for rent, $150 for fuel and lights, etc., $105 for education, $60 for taxes, $60 for care of health, and $65 for personal services. A person with an income of $10,000 per year would be expected to spend $5,000 for food, $1,800 for clothing, $1,200 for rent, $500 for fuel, etc., $550 for education, $300 for taxes, $300 for care of health, and $350 for personal services.

Engel's Law.—From these investigations Doctor Engel derived the following four deductions which are known as Engel's Law:

1. As the income increases, the relative expenditure for subsistence becomes smaller.

2. The percentage of expenditure for clothing is practically the same, no matter what be the income.

3. The percentage of expenditure for rent, and for fuel and lights is constant.

4. As the income increases, the percentage spent for education, amusements, health, etc., constantly increases.

Since Doctor Engel's day many investigations of family budgets have been made, among the most notable those of the United States Bureau of Labor in 1891, which included over 2,000 families, and the investigation of 1903, which included over 11,000 families.

AMERICAN FAMILY BUDGETS

From the Annual Report of the Bureau of Labor for 1903

Family Income	Per Cent of Total Expenditure				
	Food	Clothing	Rent	Fuel and Light	Miscellaneous
Under $200	50.9	8.7	16.9	8.0	15.6
$200–$300	47.3	8.7	18.0	7.2	18.8
$300–$400	48.1	10.0	18.7	7.1	16.1
$400–$500	46.9	11.4	18.6	6.7	16.5
$500–$600	46.2	12.0	18.4	6.2	17.2
$600–$700	43.5	12.9	18.5	5.8	19.4
$700–$800	41.4	13.5	18.1	5.3	21.6
$800–$900	41.4	13.6	17.1	5.0	23.0
$900–$1,000	39.9	14.4	17.6	5.0	23.2
$1,000–$1,100	38.8	15.1	17.5	4.9	23.7
$1,100–$1,200	37.7	14.9	16.6	4.7	26.1
$1,200 and over	36.5	15.7	17.4	5.0	25.4

These budgets and others seem to show that in America Doctor Engel's conclusions hold in reference to expendi-

tures for food; are true in the main in regard to expenditures for education, amusements, etc., are very nearly true in regard to rent, but are not to be accepted in regard to clothing and fuel and light. The percentage spent for clothing slowly increases in the United States with increased income and the percentage for fuel and light slowly decreases.

Some Recent Family Budgets.*—In 1917 a board of arbitration was appointed to determine the cost of living in Seattle and Tacoma. The occasion of this arbitration was a dispute between the Puget Sound Traction, Light, & Power Company, the Tacoma Railway & Power Company, and their employees. The award was based upon actual studies regarding cost of living and provides a "minimum-comfort budget" based upon a family of five, it is somewhat higher than a "minimum-health budget."

MINIMUM-COMFORT BUDGET FOR ONE YEAR FOR A FAMILY OF FIVE

Groceries, meat, fish	$533.40
Fuel	60.00
Clothing—man	90.50
Clothing—woman	87.00
Clothing—girl of 8 or 9	32.50
Clothing—boy of 14	48.50
Clothing—boy of 5 or 6	33.00
Maintenance of household equipment	40.00
Education	11.00
Church—fraternal dues	20.00
Medicine—doctor, dentist	60.00
Insurance	30.00
Savings	100.00
Gas	20.00
Electric light	15.00

* For recent family budgets see *Standards of Living, a Compilation of Budgetary Studies*, Bureau of Applied Economics, Washington, D. C.

Rent and water	$184.00
Street-car fare	35.70
Tobacco, ice cream	30.00
Recreation—movies, etc	30.00
Incidentals—stamps, barber, etc	25.00
Miscellaneous	20.00
Total	$1,505.60

TOTAL BUDGET

Clothing	$291.50
Food	533.40
Sundries	366.00
Rent, etc	314.70
Total	$1,505.60

The Bureau of Personal Service of the New York Board of Estimate and Apportionment presented in February, 1917, a budget based upon the cost of living for an unskilled laborer in New York City. This is a minimum-comfort budget and is for a family of five: A wage-earner, his wife, and three children; all the children are of school age and contribute no earnings to the family. (See p. 35.)

Minimum-Wage Laws.—It is apparent that a high standard of living is impossible without a living wage. A proper standard of living must include a dwelling-place, adequate in size and appointments, good food in sufficient amount, clothing suitable for each season, fuel and light, an insurance fund, as well as a reasonable expenditure for recreation and culture. Since a considerable percentage of the population does not receive a large enough wage to maintain such a standard of life, proposals for a minimum wage secured by law have frequently been made. These proposals do not imply that a high standard of living shall at once be introduced; they rather look toward the abolishing of the necessity of a low standard.

MINIMUM-COMFORT BUDGET FOR A FAMILY OF FIVE IN NEW YORK CITY

	1915	1917
I. Housing	$168.00	$168.00*
II. Carfare	30.30	30.30
III. Food	383.812	492.388
IV. Clothing	104.20	127.10
V. Fuel and light	42.75	46.75
VI. Health	20.00	20.00
VII. Insurance	22.88	22.88
VIII. Sundries	73.00	73.00
Total per year	$844.942	$980.418
Sundries classified:		
Papers and other reading matter	....	$5.00
Recreation	....	40.00
Furniture, utensils, moving expenses, etc	....	18.00
Church dues	....	5.00
Incidentals—soap, washing material, stamps, etc	....	5.00
Total	.....	$73.00

* It will be noted that the rise in rents did not begin until after 1917.

In Victoria, Australia, minimum-wage laws were first applied, beginning with six underpaid trades and later increased to apply to one hundred and forty-one. More recently minimum-wage laws have been introduced in England. In both of these countries the results have been approved by laborers and have not been detrimental to capital as had been anticipated. The minimum wage does not mean that such a wage must be the maximum; of course, a laborer must earn his minimum wage, or lose his job. The minimum wage tends toward making the

laborer efficient enough to earn it, and there have been no wholesale discharges from employment in Victoria or England on account of the law. Minimum-wage laws are not always approved by labor-unions, as they fear the minimum will be the maximum, but this fear is groundless. There will, however, be a tendency toward replacing labor by machinery, and, generally, a slight rise in price to consumers. If a minimum-wage law be passed it must be revised at frequent intervals. A minimum wage adequate in 1914 would be ridiculous now, and a law fixing a minimum wage now might make it too high to be fair two years from now.

In the United States minimum-wage laws are not regarded with approval. The labor unions prefer to make their own minimum-wage laws, and unorganized labor is inarticulate. The State can, however, by being a model employer of labor itself set the standard for other employers.

Though there has been no experience in the United States with general minimum-wage laws, twelve states have passed laws having reference to minimum wages of women and children. These laws are not supposed to affect the general standard of wages but to require that women and children shall not work for less than a living wage. Some of these states have fixed a minimum rate of wages for women and children; others have created commissions which decide upon a proper minimum wage and which may change the rate as the cost of living changes.

The constitutionality of minimum-wage laws is not positively determined. A decision of the Supreme Court of the United States involving the constitutionality of the

Oregon law was handed down on April 9, 1917. This decision left the Oregon law unchanged by a tie vote, Mr. Justice Brandeis not voting, as he had represented Oregon before his elevation to the Supreme Court, when the case was before the Supreme Court of Oregon.

Summary.—Any want is capable of being satisfied. With each additional unit of any good consumed, satisfaction becomes less. The utility of the last unit consumed is the marginal utility. Greater total satisfaction may be obtained by variety in consumption than by consuming one good until the point of satiety is reached. Family budgets show the relative consumption of various articles and from them Professor Engel deduced his famous law. A high standard of living requires a proper wage and therefore there have been proposals for a minimum-wage law. Experiments with minimum-wage laws in Victoria and England have not been conclusive. There is little demand for minimum-wage laws in the United States. The production of goods is determined by the demand, and consumers may determine, to a large extent, the conditions of production. Thrift is an economic virtue, extravagance is a vice. Necessaries and comforts should be preferred to luxuries. Luxuries do not increase the demand for labor.

TOPICS FOR DISCUSSION, DEBATE, AND SPECIAL REPORTS

1. Secure a number of family budgets from members of your own community. See how these compare with the budgets presented in the text.
2. Compare expenses for sugar, flour, potatoes, clothing, and rent in your community in 1913, 1918, and at the present time.

What are the reasons for differences in cost? Have wages risen and fallen in proportion to prices?

3. In an automobile factory in Detroit there is a minimum wage of $5 a day. If this wage is higher than the average in other competing factories in Detroit, what will be the effect upon them? If wages are higher in the automobile factories of Detroit than in those of Toledo, what will be the result, (*a*) upon labor, (*b*) upon the cost of production?
4. What is a luxury? May luxuries ever be defended? Is a luxury for one person always a luxury for another? Illustrate this by some examples.
5. Show that luxury does not increase the demand for labor. What effect has luxury upon the demand for labor?
6. Arrange a minimum-comfort budget for a family of five in your community, the family consisting of a man and his wife, a boy in high school, a girl of twelve, and a boy of five years of age.
7. Does it require a larger income to live in comfort now than when your father was a boy? Why? Do you spend more money than he did? Do you have a better time than he did? Does he think so?
8. What items of expense are greater in the country than in the city? What articles cost less in the city? Show the relative advantages of country and city life.
9. Show why you favor or oppose minimum-wage laws.
10. Find the opinion of local labor leaders on minimum-wage laws.

CHAPTER V

THE PRODUCTION OF WEALTH

Nature of Production.—Man cannot increase the material matter of the earth. He can, however, so change material things as to enable them to satisfy human wants. This process of changing things is the production of wealth. A large part of the production of wealth consists of putting things into a form in which they will satisfy human wants. This is known to the economist as the creating of *form utility*. Manufacturing is the creation of form utility. Iron ore satisfies no human want, but commodities which satisfy wants may be made from it. Putting goods in the place in which they may satisfy a human want is another process in the production of wealth. This is called *place utility*. Transportation agencies of all kinds furnish place utility.

A third variety of utility is *time utility*, which is created by those who furnish the goods at the time they are wanted. All stores and storage agencies furnish time utilities. Before most goods are ready for use, various agencies have contributed form, place, and time utilities. For example, a sheet of ice covering a Maine lake in February would not render an economic service. Men who cut the ice into cakes of convenient size for transportation produce form utility, the storage-house which keeps the ice until summer creates time utility, and the various agencies which place it where it can be used produce place

utility. Since it is evident that goods in the possession of the consumer have a greater value than before they reach the consumer, we may use the term *possession utility* as applying to this increased utility, and all agencies which contribute to possession utility are productive.

Personal Services.—Not only are economic services rendered by those who are concerned in the production of material things, but also by those who produce utilities of a non-material nature. John Stuart Mill divided people into two classes, producers and non-producers, and to the latter class he consigned those who rendered personal services. However, personal services satisfy human wants of a very intense nature and those who render such services are producers of utilities. For example, a dentist, when he extracts an ulcerated tooth, renders a service much to be desired and indirectly he aids the production of material things, inasmuch as he puts the laborer upon whom he operates in a condition to produce material commodities. Likewise lawyers, physicians, teachers, clergymen, actors, servants, and all others who render personal services, produce utilities which satisfy human wants, and each of them, in one way or another, indirectly aids in the production of material goods.

Non-Producers.—Unfortunately every community has its idle classes, those of an age at which they should be producers who are simply living at the expense of others. This class does not include those who are still completing their education, or those who have retired from active service, having earned a rest after years of toil. Economics has been called the glorification of labor, and to the economist the idle rich and the idle poor alike stand con-

demned, if they can work and refuse to do so. No honest labor is degrading in the eyes of the economist, and every loafer, whether rich or poor, is a parasite. Mere acquisition of wealth does not mean production; wealth may be obtained by fraud, theft, or gambling, but such acquisition is without the rendering of useful service or production of utility. Economic progress largely consists in increasing the per-capita production of wealth, as it is obvious that the more goods produced, the more will be available for consumption.

Factors in the Production of Wealth.—Three things are essential in all modern production of wealth. These are nature (some economists say land), labor, and capital. Nature and labor are original factors, but capital—being itself produced by nature and labor—is a derived factor.

Nature.—The various powers of nature, such as the expansive power of steam, the force of gravity, the power of electricity, the force of the winds, and many others, are used in the production of wealth. Rivers, lakes, and oceans furnish means of transportation and supply opportunities for securing fish, seals, sponges, and other material. Most important among the contributions of nature is land. The most obvious contribution of land is standing room to support people, plants, animals, and buildings. Mere standing room is not enough to make land valuable, as deserts and waste places furnish that in abundance. Minerals, upon or under the surface, are a most important contribution of land. Situation, which makes land available, is always an important element. Coal deposits in Pennsylvania are much more useful than in Alaska, because they are easily sent to market, can be worked throughout

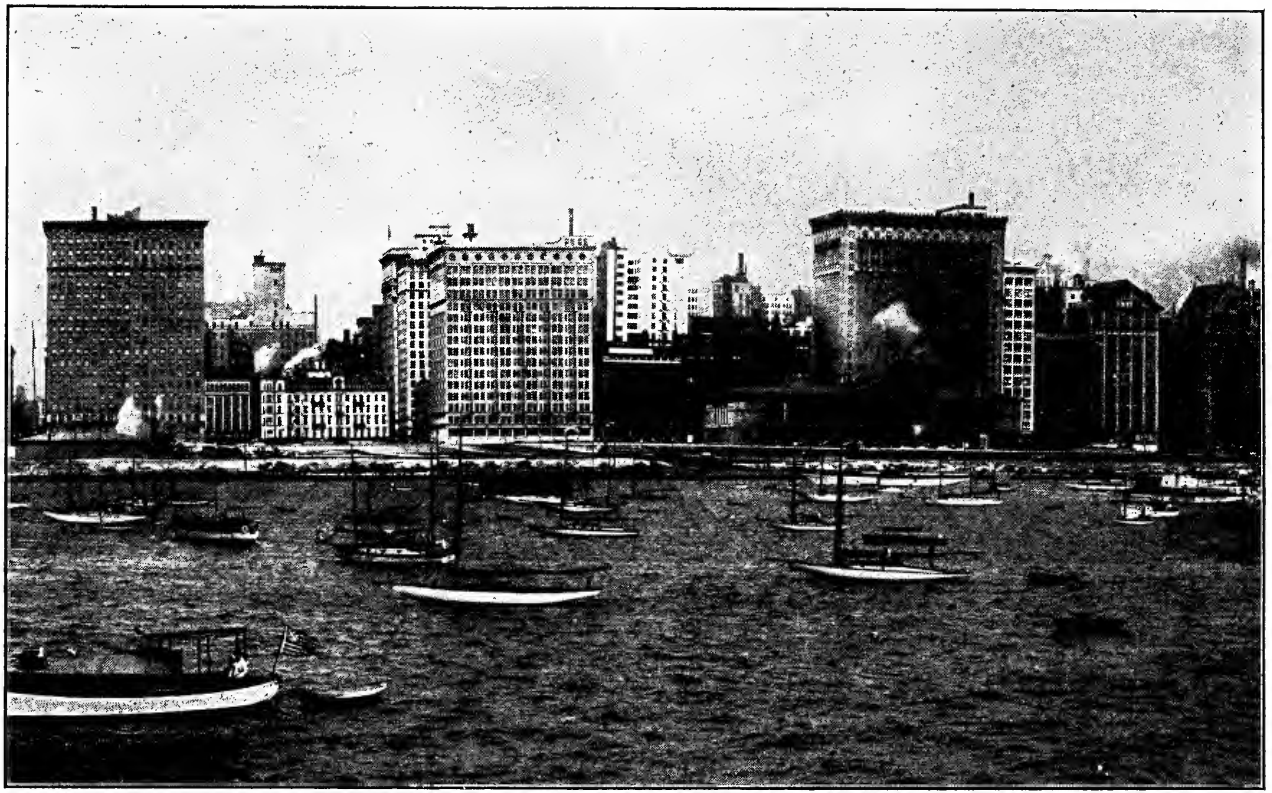
the year, and labor is obtainable in sufficient amount. Situation sometimes alone would make land valuable, as is the case in regard to city land, where fertility is of no importance. Fertility of the soil and location are both elements of importance in agriculture.

Land as Property.—In a primitive society land is seldom private property; it belongs to the tribe collectively. Men in such a condition of society obtain their living chiefly by hunting and fishing and gathering the wild fruits and nuts, but as animals and plants become domesticated and population increases, much of the land becomes private property. The waters of rivers, lakes, and oceans are not usually appropriated by individuals, though inland waters and waters of oceans within a three-mile limit, as well as enclosed bays, are regarded as national waters.

The Influence of the Land upon the People.—A population will generally devote itself to that kind of industry for which the country which it inhabits is suitable. Well-wooded country will support a lumbering industry, at least until the trees are cut. Some lands are worthless for agriculture but valuable for ore; some are suitable for vineyards but worthless for cotton. In case lands may be used for various purposes, the industry which produces the largest return in value of products will be the one to which the population sooner or later will resort.

Increase in Land.—The area of the earth cannot be increased, but it is possible to increase the useful area. The man who drains a swamp, clears the stone from a field, or makes fertile a barren piece of land increases the available land.

Through the Reclamation Service of the Department of



CHICAGO WATER FRONT

Formerly an ugly spot. Now one of the best water fronts in America. Much of the land bordering the lake has been reclaimed.

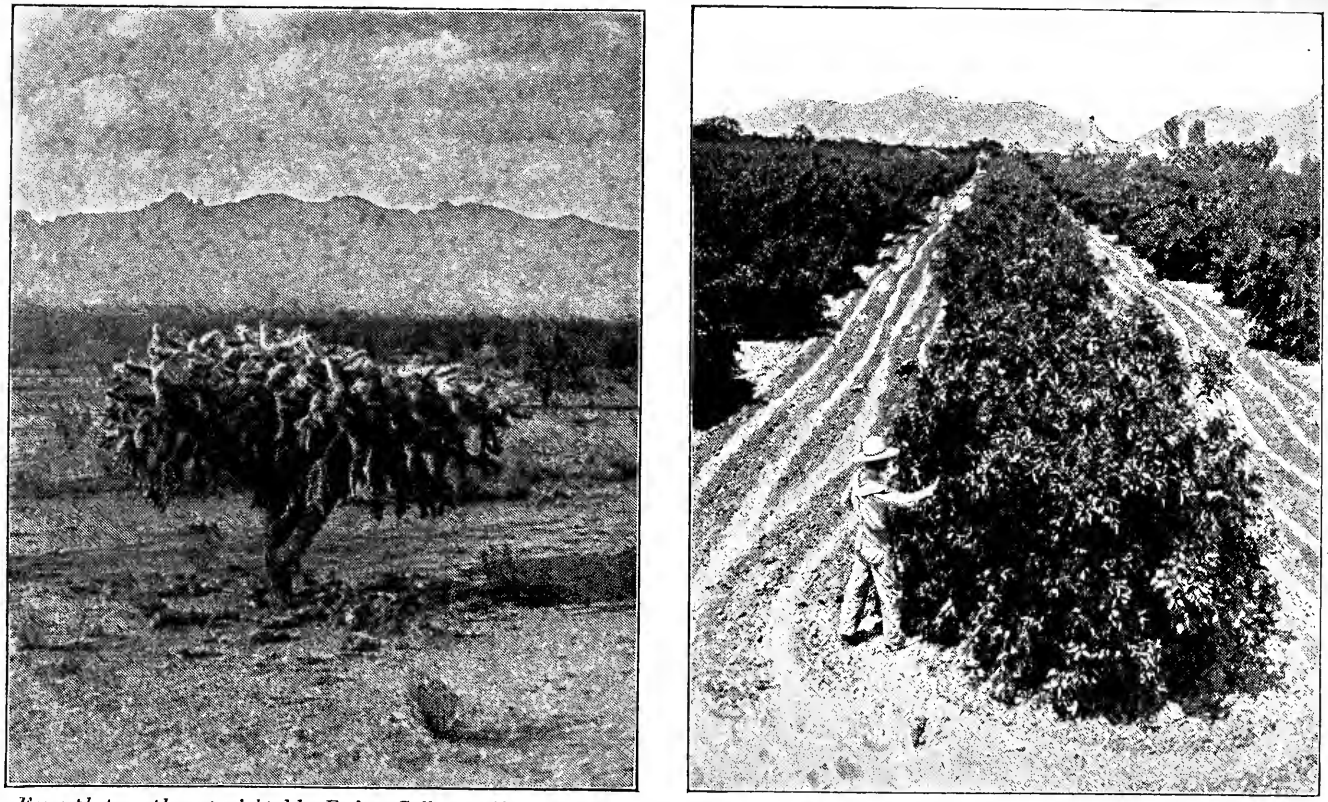
the Interior much has been done to increase the available land in the United States. The Imperial Valley of California is now one of the garden spots of America; before the water of the Colorado River was brought to this valley it was a desert waste. Thousands of acres have been reclaimed by irrigation in Arizona, New Mexico, and Wyoming and other western states. Improved methods of agriculture, such as "dry farming," may also increase available lands.

Increased means of transportation also makes available the use of land which previously could not be worked economically because of distance from a market.

The Influence of the Consumer upon Production.—Consumers, by their demands, determine to a large degree what shall be produced and how it shall be produced. Every act of production requires the co-operation of nature, labor, and capital. It is desirable that goods be produced which will make the least demand upon land, labor, and capital, and which can adequately satisfy wants. This has been called the law of the least social cost.

If the land of a community be well suited to the growing of potatoes and corn and poorly adapted to the growing of wheat, it is better that the inhabitants consume more potatoes and corn than wheat. Even though they exchange potatoes and corn for wheat grown elsewhere, there is the cost of transportation and exchange to be considered. It is equally important that men be employed at what they can do best.

Not infrequently the failure of laborers to do that which they can do best is not the lack of demand, but ignorance of opportunity or some social cause. Thousands of Italian



From photographs copyrighted by Ewing, Galloway, New York

DESERT LAND MADE FERTILE BY IRRIGATION

The picture on the left is desert land in Arizona before the waters from the Roosevelt Dam were available. The picture on the right shows seedless grape-fruit growing on the same land after irrigation.

immigrants, who were excellent agricultural laborers in Italy, come to the United States every year and take employment in the cities at work for which they never had any training and at a time when good agricultural laborers were never more needed.

The influence of the consumer upon conditions of production is shown by consumers' leagues, which are organizations of consumers pledged not to consume articles produced by child labor or where other conditions of production are socially bad. Goods produced under approved conditions sometimes bear a label, testifying to this fact. A union label is sometimes attached to goods produced by organized labor. The effort of producers to inform the public concerning conditions of production, shows that the consumers may influence the conditions of production.

Thrift versus Extravagance.—Thrift is care and prudence in the management of one's resources. At no time in our history has thrift been more necessary than in these years following the Great War. War causes the destruction of many economic goods, piles up national debts, and takes millions of laborers from productive employments to be supported at public expense. But this is not all; a prosperity, often fictitious, encourages extravagance, or possibly the extravagance is caused by a desire to forget war and its consequences. This is not confined to the United States; victorious France and defeated Germany alike have been extravagant spenders, and at a time when increased production and economy in consumption were urgently needed.

As an example of the influence of extravagance upon prices and demand for labor let us consider for a moment

the extravagant use of an automobile for pleasure purposes. A man who has saved only $1,000 withdraws it from the bank and buys an automobile. His demand for gasoline tends to increase the price of gasoline for productive purposes; his car needs repairs frequently and the number of men withdrawn from other occupations into automobile repairing increases; he, like thousands of his kind, goes touring, and garages in every little village are made to minister to his wants and men are withdrawn from agriculture and land withdrawn from cultivation in order that he may be served. It is not too much to say that extravagance in the purchase and use of automobiles for pleasure purposes is a contributing cause to the high cost of living.

Mr. Andrew Carnegie remarked some years ago that our troubles were not so much concerned with the high cost of living, but the cost of living high, and if it were uttered more or less as a jest, many truths are so uttered. A high standard of living does not mean an extravagant standard of living. The road to economic prosperity is not being trod by those who think they must spend every cent they earn. Thrift and saving are virtues to be commended.

When production exceeds consumption there is economic progress; on the other hand, if consumption is greater than production there is an economic decline. With production exceeding consumption capital is accumulated and new factories, dwellings, and other utilities may be erected, but if a community is consuming more than it produces, it is living on past accumulations which will in time be exhausted. In time of war consumption usually exceeds production; vast numbers of men are withdrawn from

ordinary economic activities and put into military service where they produce no economic goods, but consume immense quantities of food, clothing, and war supplies. Another host of laborers at home is withdrawn from peaceful and productive activities and put to work making supplies for the army. Though other influences are also at work, this alone accounts for the scarcity and resultant prices of goods during war times. There can be no recovery from high prices until production not only catches up with consumption, but passes it. Of all the belligerents on the continent of Europe in the recent war, Belgium was the first to settle down to work after the war was over, and it bids fair to reach soon its pre-war production. It is work and thrift which win in war or in peace. A man who produces less than he consumes is an economic liability and not an asset.

Summary.—The production of wealth is the creation of form, place, time, and possession utilities. Those who render personal services also create utilities and are producers of wealth. Every producer of wealth is an aid to the economic life of a community. Every person who is able but unwilling to work is a detriment to any community. Land, labor, and capital co-operate in the production of wealth. Each is dependent upon the other. Labor and land can do little without capital, nor can any combination of two factors do much without the third. Although the area of the earth's surface cannot be increased, it is possible to increase the useful area. Capital is increased by savings. The greater the supply of land and capital, the more is the demand for labor. War destroys capital and labor. Hence it diminishes production

of wealth. Even land may be injured by war. Parts of Belgium, once rich agricultural lands, were flooded for years with salt water and cannot become productive for generations. Much of the land of northern France has been injured by being impregnated with gases and the top soil blown away by explosions. Work and saving enable a country to recover from war conditions.

TOPICS FOR DISCUSSION, DEBATE, AND SPECIAL REPORTS

1. Are teachers producers of wealth? Are editors? Are gamblers? Why?
2. Give a list of non-producers of wealth. Show what non-producers are detrimental to a community.
3. The city of Chicago has filled in the lowlands which formerly formed the border of Lake Michigan and has reclaimed much land that was once covered with water. The Chicago lake front, once an ugly spot, has become a park. What land in your community has become available in recent years? What lands now idle in the vicinity of your city may be made useful?
4. Show how railroads increase the available lands of a country. What economic services are rendered by wagon-roads? Show how poor roads increase the cost of agricultural commodities. Are the country roads near your city in good condition? How might they be improved?
5. Show how the Reclamation Service of the Department of the Interior has made land available for use in Arizona, Wyoming, and New Mexico. Write to Department of Interior, Washington, D. C., for information on reclamation.

CHAPTER VI

LABOR AND POPULATION

The second factor in the production of wealth is labor. To the economist all effort directed toward the production of wealth is labor, whether this effort be of mind or body. The effectiveness of labor is influenced by many qualities, the most obvious of which is strength. Other things being equal, a strong man can work better than a weak one. Physical strength alone is of little value; many of the lower animals far surpass man in that. Moral qualities, such as temperance, truthfulness, and reliability are needed. Mental traits such as skill, quickness, and mechanical ingenuity are also necessary.

Labor is much more efficient under good physical surroundings. It pays to have factories well lighted and ventilated and properly equipped in other respects. Social esteem adds to the productiveness of labor. Wherever labor is held in low esteem it produces little. If labor is highly esteemed men do not seek to avoid it and they have pride in their calling.

Temporary Lowering of Efficiency of Labor.—In the United States the efficiency of labor was undoubtedly lowered during the war and immediately after its close. In 1914 a capable bricklayer would lay 1,900 bricks per day for a wage of $5. Bricklayers in 1920 did not average more than half the efficiency of 1914, though wages in

1920 were $9 per day. This loss in efficiency was partly caused by the necessity during the war of getting labor of any degree of ability. During the war any man who could work at all could get a job, and high wages attracted all kinds of men. Professor David Friday, in a valuable contribution to economic science, remarks:*

"There seems to be a general opinion among employers and managers that the efficiency of labor to-day is as low as 60 per cent of its 1914 level. Now an average payment of 210 per cent† for an efficiency of 60 per cent means a unit cost for labor of 350 per cent, as against 100 in 1914. If the efficiency of labor is as high as 70 per cent, then the labor cost per unit of output is 300 per cent of what it was then. That such an increase in cost per unit of output must exercise a powerful effect upon price is apparent. Not only is the cost of the labor element in production increased, but the overhead costs are also greater as the time consumed in production is longer.

"This fall in output per laborer has proceeded at an unusual rate since the summer of 1919. Coupled with the increase in money wages there seems little doubt that there has been since the armistice a general increase in the labor cost per unit of at least one-third and possibly one-half."

In the late autumn of 1920 and the winter of 1921 there was a gradual increase in the efficiency of labor. Industrial plants discharged less efficient laborers and so raised the general average of efficiency. Though a war may render labor less efficient for a time, as soon as normal con-

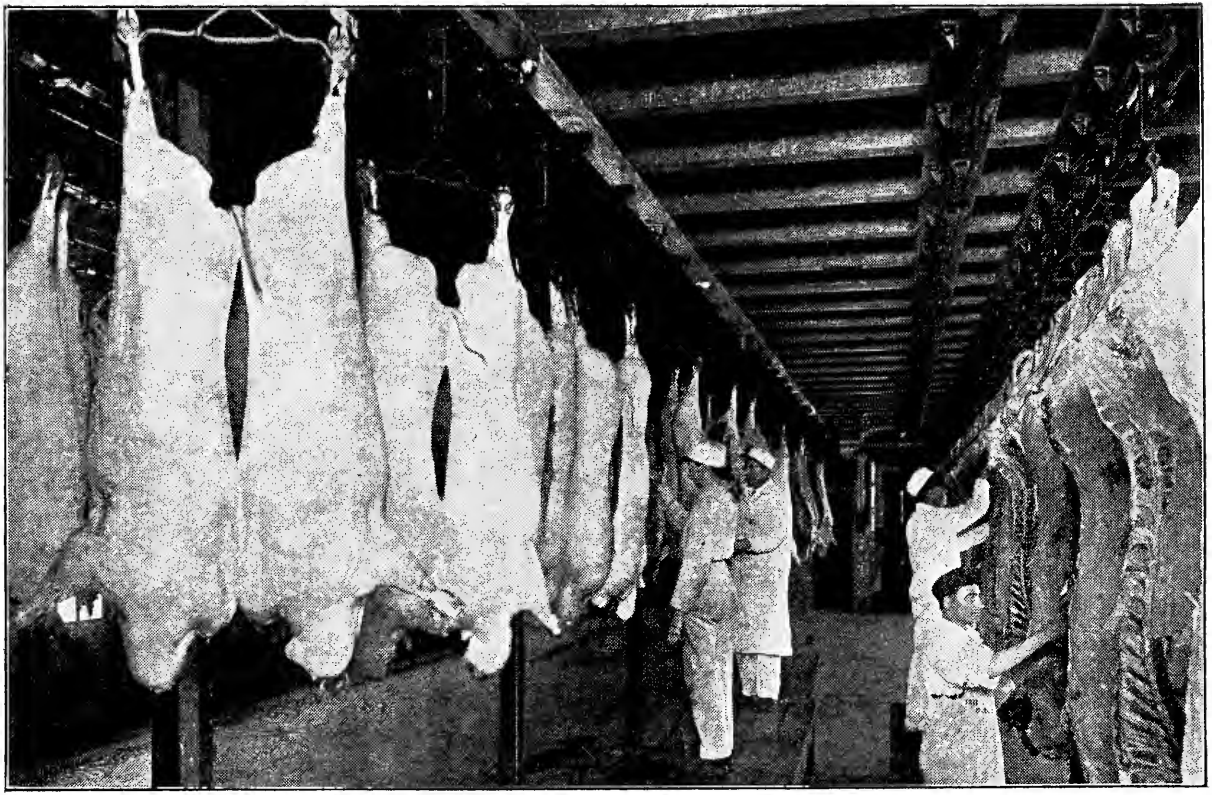
* *Profits, Wages and Prices*, p. 109.

† The average increase in wages since 1914.

ditions are restored efficiency begins to return to old standards.

Division of Occupation and Division of Labor.—No man can do all things equally well; a jack-of-all-trades has ever been a master of none. Since this is true it is much better for a man to confine his attention to those things which he can do well and exchange his labor or the goods which he produces for the other articles which he needs. This is division of occupation. The advantages of division of occupation were understood very early in the history of mankind. Among savage tribes the arrow-heads were made by men who were skilful workers in stone, the shafts were made by other men, and the bows by yet another set of men. As civilization increased the division of occupation increased, and in modern times there is a greater specialization, which we call division of labor. Few men make an entire article. For example, fifty years ago there were still men who made an entire shoe, but now there are a score of operations in the making of a shoe and each worker is confined to one of these operations. One man cuts out the upper, another cuts the sole, another sews the upper, another runs a machine that makes eyelets, another puts on the heel. Thus the shoe is made by a number of men, no one of whom could make an entire shoe. This division of labor holds in all employments. A striking example of the minute division of labor in the great packing-houses is given by Professor Commons:

"It would be difficult to find another industry where division of labor has been so ingeniously and microscopically worked out. The animal has been surveyed and laid off like a map; and the men have been classified in over



Photograph by Publishers Photo Service.

SKILLED WORKMEN IN A CHICAGO PACKING-HOUSE

thirty specialties and twenty rates of pay from 16 cents to 50 cents an hour. The 50-cent man is restricted to using the knife on the most delicate parts of the hide (floorman) or to using the axe in splitting the back-bone (splitter); and wherever a less skilled man can be slipped in at 18 cents, 18½ cents, 20 cents, 22½ cents, 24 cents, and so on, a place is made for him and an occupation mapped out. In working on the hide alone there are nine positions at eight different rates of pay. A 20-cent man pulls off the tail, a 22½-cent man pounds off another part where the hide separates readily, and the knife of the 40-cent man cuts a different texture and has a different 'feel' from that of the 50-cent man. Skill has become specialized to fit the anatomy."

Division of labor is not confined to manufacturing and commerce. It has entered the professions. Not long ago the high-school teacher was supposed to be able to teach Latin, French, and mathematics as chief subjects and devote any spare time to history and English. Now every good high school has teachers who are specialists. In medicine, dentistry, and law a similar development of specialists has occurred.

Advantages of the Division of Labor.—Division of labor has several advantages. In the first place practice in doing one thing produces great skill. To one watching a girl packing candy in a large candy factory, the skill and rapidity of motion which she shows seems wonderful, but there is nothing remarkable about it. It is the result of long practice. Then there is much time saved that would be lost in passing from one sort of work to another. Also machinery is fully utilized, and invention stimulated, be-

cause, as Adam Smith said: "Men are much more likely to discover easier and readier methods of obtaining any object, when the whole attention of their minds is directed to that single object, than when it is dissipated among a great variety of things." Many inventions have been made by common laborers, who have found new methods of doing some part of their work. Through the division of labor many more things can be produced by the same number of men and the cost of making goods is therefore reduced.

Disadvantages.—It is often maintained that division of labor takes away the pride which a working man might have in his product. A man might enjoy making a pair of shoes, but what intellectual stimulus can come from running a machine which stamps eyelets? The deadly monotony of a single operation repeated all day long is also urged as a disadvantage. However, division of labor has come to stay and to grow in importance. With an eight-hour working-day and increased time and opportunity for education and recreation, the alleged disadvantages seem trivial as compared to the advantages.

The Geographical Division of Occupation.—A geographical division of occupation in the United States is noticeable. The growing of spring wheat is the leading industry of Minnesota and the Dakotas; corn is the great crop of Illinois, Kansas, and the other states of the "corn belt"; cotton is produced in the Gulf States; small fruits are grown in central New York, New Jersey, Delaware, and California; and tobacco is grown in Virginia, Kentucky, and the Carolinas.

Collars and cuffs are made more largely in Troy than elsewhere; more than half the gloves manufactured in this

country are produced in the adjoining cities of Gloversville and Johnstown, New York; Paterson, New Jersey, specializes in silk; East Liverpool, Ohio, and Trenton, New Jersey, are noted for their potteries; Brockton, Massachusetts, is a centre of boot and shoe manufacturing; and Fall River, Massachusetts, is chiefly concerned in making cotton goods.

Causes for Geographical Division of Occupations.—The thirteenth census of the United States gives several reasons for the localization of industry:

1. Nearness to raw materials. Other things being equal, nearness to raw materials aids industry. The flour-mills in Minneapolis, tobacco factories in Richmond, packing-houses in Kansas City, and many other local industries are thus explained.
2. Nearness to markets.
3. Water-power and coal. Water-power originally helped New England. More recently it has created the manufacturing industries of Niagara Falls. Though now of less importance than proximity to a supply of fuel, water-power, on account of new methods of generating power and converting it into electricity promises to regain its former importance.
4. A favorable climate. For example, the moist climate of Fall River is favorable to the cotton-manufacturing industry.
5. A supply of suitable labor.
6. Local capital available for investment.
7. The advantage of an early start.

Increase in Population.—The character and number of the people are of the utmost importance to a country in

its economic life. It is possible for a country to have more people than can be supported decently by the resources of that country. When this is the case the surplus population must either be decreased by emigration or suffering will result. On the other hand a country may not have enough people to utilize its resources. The United States has been a country which could utilize not only its own people but could offer employment to large numbers of immigrants. The population of the United States has therefore been increased by two methods: (1) The excess of births over deaths, (2) by immigration.

Natural Growth of Population.—Where the birth-rate is high, the death-rate is usually correspondingly high. Roumania has the highest birth-rate in Europe and also the highest death-rate. Italy, Hungary, Saxony, and Bavaria have high birth-rates and high death-rates. The economic condition of a people does not seem to influence the birth-rate, but the birth-rate affects the economic condition. The overpopulated countries—and overpopulation means more people than the country can well support in the present condition of arts and sciences—have a low standard of life and a high birth-rate.

France has the lowest birth-rate and lowest death-rate of the great European countries and the standard of living is higher than in any of the other countries of continental Europe. Roumania, with a low standard of living, has a birth-rate of 40.7 per thousand and a death-rate of 29.3 per thousand. Contrast the birth-rate of 22.2 per thousand and the death-rate of 21.5 per thousand in France with the rates in Roumania. The French people are thrifty and prudent, and marriages are not contracted unless there

is a fair prospect of being able to support a family in some degree of comfort.

The insistence upon maintaining a high standard of life is the chief force making for a low birth-rate.

The birth-rate in the United States for the calendar year 1917 was 24.6 per thousand and the death-rate was 14.1 per thousand. When the country was new and there were unlimited possibilities for making a living and when agriculture was overwhelmingly the chief industry, naturally the birth-rate was high. As the country grew and city life became more common—and it must be remembered country children become an economic asset much sooner than children in the city—the birth-rate declined.

The United States is so large and conditions are so diverse in the different states that vital statistics for the whole give little indication of conditions in any part of the country. States with a large colored population, as a rule, have both larger birth and death rates than those with a small colored population. The death-rate has been

BIRTH AND DEATH RATES OF SOME TYPICAL STATES FOR 1917

	Estimated Population		Birth-Rate per Thousand	Death-Rate per Thousand
New York.....	White,	10,288,042	23.5	14.6
	Colored,	172,140	22.6	24.8
Wisconsin.....	White,	2,512,275	23.5	11.5
	Colored,	14,862	13.7	13.0
Washington.....	White,	1,556,433	14.4	7.4
	Colored,	40,967	27.2	16.2
Maryland.....	White,	1,143,092	24.1	15.0
	Colored,	230,581	27.9	27.1

on the decline for many years, the result of better sanitation and better treatment of disease.

The birth-rate and the death-rate depend among other things upon the standard of living. As a rule the negroes have a lower standard of living than the whites and they are therefore less able to resist disease. States like Washington, where a smaller proportion of the population are infants and old people, because the state attracts many young men from the East, would naturally have a lower death-rate than New York.

The Malthusian Theory of Population.—John Jacques Rousseau (1712–1778), a brilliant French philosopher, began his work, *The Social Contract*, with the statement that "Man was born free and is everywhere in chains." Man, he thought, is naturally good, but has been degraded and corrupted by what is called civilization. Nature does everything well. Human institutions are all wrong. The remedy is to return to a simple and virtuous life such as existed in primitive society.

Though Rousseau's reasoning was opposed to all the teachings of history and psychology, it gained ready acceptance in many countries.

In England Thomas R. Malthus (1773–1836) attacked the doctrine of Rousseau in his famous book, *The Theory of Population.* Malthus claimed that the greatest cause of suffering and misery is that population tends to increase faster than subsistence and that without moral or social restraints of any kind, the population will reach a point where comfortable subsistence is impossible. With the maximum birth-rate and the minimum death-rate, Malthus maintained that the population would double in twenty-

three years. Nature, he stated, provides positive checks upon a redundant population, and these are famine, pestilence, and war. That the population of India, China, and possibly Japan has increased to such an extent as to make these positive checks operative can hardly be doubted, and a portion of the population in many other countries is in about the same condition.

Malthus stated that the preventive check of prudence would prevent the application of positive checks. The state of civilization of a country is indicated by the kind of check placed upon increase in population. In countries like India and China positive checks operate; in countries more advanced the population insists upon maintaining a high standard of life, and in such countries the Malthusian law in its harsher manifestations does not operate. Many attempts have been made to disprove the Malthusian theory, but it stands accepted by most scientists of the present day.

Immigration.—The United States has had large additions by immigration and, because living conditions are better here than in most countries, we have lost few by emigration. Immigrants have come to this country chiefly because they wished to better their economic condition, though from time to time political or religious persecution has caused people to come to this country.

Immigration before 1883 was chiefly from the north of Europe; since 1883 it has been chiefly from central and southern Europe and from Russia.

The immigration into the United States in the last year before the Great War was 1,218,480; during the war immigration practically ceased, but in the spring and summer

ARRIVALS OF ALIEN PASSENGERS AND IMMIGRANTS

Country of Last Permanent Residence	1871–1880	1881–1890	1891–1900	1901–1910	1911–1918
Austria-Hungary	72,969	353,719	597,047	2,145,266	895,937
Germany	718,182	1,452,970	543,922	341,498	142,892
Italy	55,759	307,309	655,694	2,045,877	1,012,495
Norway	211,245	568,362	95,264	190,505	59,955
Sweden			230,679	249,534	86,969
Russia	52,254	265,088	593,703	1,597,306	918,803
The United Kingdom	436,871	655,482	403,496	339,065	136,116

of 1920 the tide of immigration began to rise and was apparently only limited by the small tonnage available for transporting it.*

The immigration before 1883 is generally known as the "old immigration." It came from the United Kingdom, Germany, Sweden, France, and the neighboring countries. The immigration since 1883, known as the "new immigration," has come chiefly from Italy, the Balkan countries, and the lands which were once Russia and Austria-Hungary.

* A new immigration law, known as the Dillingham percentage immigration law, went into effect on June 1, 1921. This law limits the number of immigrants to be admitted during the year 1921–1922 to 3 per cent of their countrymen in the United States, according to the census of 1910. This law is a temporary one and postpones rather than solves the question of immigration.

Under the law 77,206 immigrants will be allowed to enter from the United Kingdom during the fiscal year; from Norway, 12,116; Sweden, 15,956; Denmark, 5,644; the Netherlands, 3,602; Belgium, 1,557; Luxembourg, 92; France, 5,692; Switzerland, 3,745; Germany, 68,039; Danzig, 285; Finland, 3,890; Africa, 120; Portugal, 2,269; Spain, 663; Italy, 42,021; Russia, 34,247; Austria, 7,444; Hungary, 5,635; Roumania, 7,414; Bulgaria, 301; Greece, 3,286; Czecho-Slovakia, 14,269; Jugoslavia, 6,405; Albania, 287; Fiume, 71; Poland, with Western Galicia, 25,800; Eastern Galicia, 5,781; Australia, 271, and New Zealand, 50.

Immigration into the United States is prohibited to those who have dangerous diseases or are liable to become public charges, as well as those with criminal records or who are tainted with anarchistic doctrines or other political heresies which would make them undesirable citizens. After being vetoed by two previous presidents, a bill was signed in 1917 by President Wilson forbidding immigration into the United States by those who were unable to read in some language.

Sociologists and economists differ upon what should be the immigration policy of the United States. Those who favor increased restrictions—and some would even extend the restrictions against Chinese and Japanese immigration to the rest of the world—contend that the new immigration is not equal to the old. The old immigrants were of the same racial stock as the bulk of the American population, possessed the same political ideals and were readily assimilated, but the new immigrants are racially different, will not readily accept American institutions and will not be assimilated. It is further argued that America no longer needs immigrants, as the public land has been occupied and the immigrants must compete with Americans for employment, and they will lower the standard of living by accepting a wage upon which an American could not live. That the new immigrants herd in cities and keep up their own language and institutions is also advanced against the new immigrants.

Those opposed to further restrictions deny that the new immigration is bad and claim that the new immigrants are becoming citizens and good citizens; that their children are sent to American schools and prefer to use the English

language; that our high schools and colleges every year show an increased number of children of new immigrants; that many have taken some part in public affairs; that the new immigrants were second to none in the support they gave the United States during the Great War. It is also said that the country needs a larger supply of labor and the standard of living is not permanently lowered because the immigrant soon learns what wage the American is getting and demands the same for himself. If the new immigrant lives cheaply, so did once the German and the Irish. The old immigrant became assimilated and so will the new immigrant.

Americanization.*—Many thousands of immigrants have come to the United States who have never learned to speak, read, or write the English language. To these must be added a large number of native-born Americans who cannot read or write English and who know little or nothing concerning American institutions or self-government. The total number of these classes reaches the astonishing figure of eight millions. The South has the greater number of illiterates; the North leads in non-English-speaking population.

Americanization is an effort to assist the native and foreign-born illiterate to learn the English language and to be able to take part in the best that America can offer to its people. It has nothing in common with the efforts which the old Russian Empire made to Russianize the province of Finland and of Turkey to suppress the liberties of the Armenians or of the Germans and Austrians, before the fall of the empires of central Europe, to crush the

* See Appendix.

national customs of their subject peoples. Americanization seeks to help the less fortunate among our population so that they can take an intelligent part in our life, may know our heroes and make them their own, and may share in the economic advantages that our country offers. Americanization not only concerns itself with the immigrant and the native illiterate but it helps the Americans to understand the immigrant, to sympathize with him, and to know his value to the country. The immigrant must not think that we do not care for him. We must care concerning his welfare and must welcome him to a common enjoyment of the advantages which our country offers.

Summary.—The efficiency of labor depends upon physical qualities such as health, strength, and intelligence. Moral and mental qualities are no less necessary. Division of occupation and division of labor increase efficiency. The population of the United States has increased (1) by the excess of births over deaths, (2) by the excess of immigration over emigration. A country may be overpopulated or underpopulated. According to the Malthusian theory overpopulation has been a chief cause of human suffering. The United States on account of its great resources has always attracted immigrants from less fortunate countries. The "old immigration" came from northern Europe; the "new immigration" comes from southern Europe, central Europe, and Russia. It is necessary that immigrants be taught our language and institutions. The object of Americanization is to help the immigrant and to help America.

TOPICS FOR DISCUSSION, DEBATE, AND SPECIAL REPORTS

1. What are the leading industries of your city? For the manufacturing of what articles has your city exceptional advantages? What are these advantages?
2. Is labor in your city more or less efficient than five years ago? Why? Ask the opinion of some manufacturer. Also ask some laborer.
3. Visit some local factory and study the division of labor.
4. Should immigration into the United States be further restricted? How would the prohibition of all immigration affect the industries of your city? What would be its influence upon wages?
5. What is Americanization? What efforts toward Americanization are being made in your city? How can you help Americanization?
6. What have Italian immigrants done for America? What benefits have come from German immigrants? from Irish? from Hebrew? from Scandinavian? from English?

CHAPTER VII

THE NATURE AND USE OF CAPITAL

When Robinson Crusoe tried to catch fish with his hands he found the task difficult. A few poor and unpalatable fish were all that he could secure. The thought came to him that by spending a few hours in making a line from a grape-vine and fashioning a hook from a bone he would be more successful. He was not disappointed. But the best fish were still beyond his reach. He therefore spent several days in chopping down a tree and from it making a dug-out canoe. Then a net was made from some rope that he had salvaged. Thus equipped he ventured out to sea and in a few hours caught enough fish to last for days. The line and hook, the boat and net were capital. It took labor to make them and he was obliged to wait for his reward until the fish were caught.

Capital is sometimes called "the produced means of production." It consists of all the products created by labor in co-operation with nature, which are not used to satisfy present wants, but are used for the making of more goods. Tools, machinery, buildings, wagons, raw materials, railroads, and all other material goods used in the production of wealth are capital. Bank-accounts, which are necessary for the conducting of business, are capital, as is also the money necessary to carry on a business.

Land is not capital. It is a gift of nature and the laws governing the earning power of land are different from

those governing the returns to capital. The knowledge and skill a man possesses are not capital; they are a part of himself. Goods used to satisfy wants are not capital. They are known as "consumers' goods," to distinguish them from "producers' goods" or capital.

Capital and Capital Goods.—The business man does not use the term "capital" in exactly the sense in which it is used by economists. To the business man the term capital means the value of his equipment in money, plus the money used to carry on the business and the bank accounts which the business has acquired. Many business men would also include "good-will," patents, and trade-marks as part of their capital.

Some economists distinguish between "capital" and "capital goods"; using the term "capital goods" to apply to machinery, tools, buildings, and other goods which wear out during the process of production and are constantly being replaced and repaired. "Capital" they use as the value of these goods in terms of money, including also the value of other aids to production.

Fixed and Circulating Capital.—Economists distinguish between fixed and circulating capital. Fixed capital is capable of being used many times, while circulating capital is consumed in one act of production. It is fitly called circulating capital, for its value passes into the article produced. For example, a boiler is fixed capital; the coal that is fed into the boiler is circulating capital. The distinction is one of degree only, as no capital is unaffected by use. Another example of fixed capital is the machinery in a candy factory. The sugar used in making candy is circulating capital.

Free and Specialized Capital.—Some of the material aids to production are capable of many uses, and such capital goods are *free capital*. An ordinary building may be used for several purposes and such raw materials as wood, coal, and iron can be used in making a great variety of goods. Highly specialized machinery or a building suitable to only one kind of industry is *specialized capital*. For example, a type-setting machine can be used for one purpose only and is specialized capital, but the dynamo that furnishes power to run the machine is free capital and could be used in other industries.

Public and Private Capital.—Capital may be classified as to ownership into public and private capital. Public roads, bridges, canals, as well as public buildings used in the production of wealth are examples of public capital. Inasmuch as court-houses, public records, jails, and schools are all necessary to the production of wealth, they may well be included under public capital.

The Roundabout Process of Production.—The capitalistic process of production is an indirect or roundabout method. The direct method of getting fish would be to catch them in the hands, but this method seldom produces large returns. To make a line, fashion a hook, and secure bait is an indirect method of getting fish, but it results in more fish being caught. To build steam trawlers, make nets and other apparatus is still more indirect, but the returns are correspondingly larger. Similarly all employment of capital is an indirect method of production.

Capital Formation.—It is evident that no capital would be formed if men consumed all they produced. Capital is the result of saving, and a person who saves is rendering a

social service by this thrift. One of the causes of the high cost of living during, and following, the Great War, was the extravagant habits that led men and women to spend most of what they produced, and thus checked capital formation. It is an error to think that capital is owned only by the wealthy. Every person who owns a tool is a capitalist. Every one who has a savings-bank account is a capitalist and his capital enables the bank to lend money which is used in industry.

For the formation of new capital the first essential is production, then there must be saving. Then the investing of savings in some form of production must follow. Whether this process is completed by the same person makes no difference. The person who saves and lets others invest his savings is as truly adding to the capital of the country as though he directly constructed a factory.

Replacement Funds.—Inasmuch as capital goods wear out by use, all business men must include as a part of the costs of production, a replacement fund. If a machine wears out in five years, there must be set aside during these five years not only enough to keep the machine in repair but enough to replace it when worn out.

All losses incident to the conduct of business must be made good by replacement funds supplied directly or by means of insurance.

War destroys much capital and for such unusual destruction no provision of replacement funds is ordinarily made or can be made. Even in countries outside the zone of conflict, the energies of the people are directed to war industries and replacement funds are largely neglected.

The railroads of the United States came out of the war not quite a wreck, but in a badly demoralized condition, short of motive power, rolling stock, and general equipment.

Summary.—Capital is "the produced means of production." It is necessary to all modern production of wealth. Fixed capital may be used many times, but circulating capital is consumed in one process. Specialized capital can be used for one thing only, but free capital is capable of several different uses. Most capital is owned by private persons or corporations. Public capital consists of roads, bridges, canals, and other direct aids to the production of wealth. Since the maintenance of order and the enforcement of contracts is necessary, court-houses and halls of records are public capital. Hospitals, asylums, public schools, public libraries, museums, parks, and other public property aid directly and indirectly in the production of wealth and are public capital.

The capitalistic production of wealth is a roundabout process. The direct way to go from Marion, Ohio, to Terre Haute, Indiana, is to walk. The building of a railroad or an automobile is an indirect method. When Robinson Crusoe wanted a pair of shoes he killed a pair of rabbits and wrapped their hides around his feet. We build factories, buy machinery, and produce shoes in a roundabout method.

The formation of capital depends upon savings. If we consume all we produce there can be no increase in capital. Every one who has a bank-account is a capitalist and so is every one who owns a tool or a piece of machinery which is used in the production of wealth. Most capital is private, but public capital is also important. The capitalistic

method of production is a roundabout process. Capital is the result of saving.

TOPICS FOR DISCUSSION, DEBATE, AND SPECIAL REPORTS

1. Is capital necessary in all production of wealth? If a boy kills a pheasant with a stone has capital been employed? Mention some other instances of production of wealth without capital.
2. Name some specialized capital that is in use in your own city. Give some instances of capital that has been diverted from one use to another.
3. Why might a jail be considered public capital? A schoolhouse? A court-house?
4. Show the indirect method of supplying water in your city.
5. What are the chief methods by which savings are encouraged in your city?
6. What method did Robinson Crusoe follow to get a new suit of clothes? Show how the capitalistic method would be introduced as population and capital grew.

CHAPTER VIII

MARKETS, VALUE, AND PRICE

Any place where buyers and sellers come together to transact business is a market. In early times open spaces in each city were set apart for markets and here came buyers and sellers. The Forum at Rome was originally a market-place and so was the Agora at Athens. Markets like those of the ancient times may still be seen in many parts of America. The farmers drive into town on market-day and the townsfolk go to the market-place to buy. Prices are fixed by demand and supply. For example, the farmers may first offer potatoes at two dollars a bushel, but if there are more potatoes than can be sold at this price, some farmer, rather than take his potatoes home, will offer them at $1.75 and the other farmers must meet this price. On the other hand, if purchasers are eager to buy, the farmers will raise the price.

Markets were once local, and prices in one place might be very different from prices in a town thirty miles away. With increased means of transportation markets came to serve a larger area, and prices in one place influenced prices in a distant market.

Now most goods are sold in stores, but the same principle holds as in an open-air market. Each store is influenced by the prices of other stores, and if goods cannot be

sold at one price they must be reduced in price until they can be sold, or if a great demand exists for goods the prices may be increased. It is no longer necessary that buyers and sellers should come to the same place. They may trade by letter, telephone, telegraph, or cable.

For some relatively non-perishable articles there is a world market. For example, the wheat market is in normal times a world market and prices are fixed in Liverpool, which has become the great market for the European wheat trade. Some countries do not produce enough wheat for their own use, while others have wheat to export after meeting their own needs. Wheat is graded according to quality, and a trader may buy without ever seeing the wheat. The following tables show the countries which produce wheat in excess of their own requirements and the countries which produce less than they need and must import.

PRINCIPAL WHEAT-IMPORTING COUNTRIES

Country	Bushels
Great Britain and Ireland	191,693,300
Germany	87,357,000
Belgium	73,422,800
Netherlands	63,355,100
Italy	56,302,900
France	34,169,500

PRINCIPAL WHEAT-EXPORTING COUNTRIES

Country	Bushels
Russia	148,262,700
Argentine Republic	96,858,600
Canada	65,064,500
United States	53,024,700
India	40,711,100
Australia	36,670,700

These figures are the average imports and exports per year for six years immediately preceding the Great War.

Demand and Supply.—Demand for an article does not mean mere desire. It must be desire accompanied by ability to purchase at the market price. Likewise, supply does not mean possession of a commodity, but willingness to sell at the market price. Demand and supply vary with price. For example, if potatoes are five dollars a bushel there will be few purchasers, but all persons who have more potatoes than they need will be willing to sell. With potatoes at fifty cents a bushel there will be more purchasers and fewer sellers. Thus it is seen that when prices are high, demand tends to fall and supply to increase, and when prices are low demand tends to increase and supply to decrease. With perfect competition there is only one price in the same market at the same time, because no buyer will pay more than his neighbor and no seller will sell for less than others are getting.

Elastic and Inelastic Demand.—Although the demand for all economic goods increases as the price decreases, the demand for different goods does not vary at the same rate. If the demand for a good increases or diminishes rapidly with the fall or rise in price, the demand is said to be elastic. If a change in price does not very greatly affect the demand, it is then said to be an inelastic demand. The demand for salt in the United States is inelastic. We consume about the same quantity of salt no matter what may be the price, though if the price were to rise very greatly, economy would be practised and the demand would decrease. Elasticity in demand varies in regard to the same article in reference to the wealth of purchasers.

A recent rise in the price of gasoline caused many owners of automobiles to restrict their use of gasoline, but it made little, if any, difference in the demand of the very wealthy. The demand for eggs by people of great wealth is inelastic, but the demand of the average person is very elastic. At thirty cents a dozen, eggs are eaten for breakfast and are a cheap food, but at one dollar a dozen they are little used except by the rich.

The Law of Substitution.—There are few articles for which there is no substitute. When the price of any article rises, substitutes are used by many people. When butter is forty cents a pound and oleomargarine is thirty cents, the demand for butter is very great and the demand for oleomargarine correspondingly small, but let the price of butter rise to eighty cents and the demand is much less for it, while the demand for oleomargarine becomes much more intense. The falling off in the demand for butter tends to decrease its price, while the rise in the demand for oleomargarine tends to increase its price. In the same way a rise in the price of potatoes causes an increase in the demand for rice and macaroni, or a rise in the price of wheat causes an increased use of corn and rye. The use of substitutes tends to stabilize prices by decreasing the demand for the article and increasing the demand for its substitute.

Subjective Value.—There are two senses in which the term *value* is used: Value in use and value in exchange. Value in use refers to the satisfaction that may be obtained from an article by the individual who uses it, while value in exchange refers to what the article will bring if offered for sale. Value in use is called *subjective value;* value in

exchange is *objective value* or *market value*. The subjective value of an article may differ with different persons and with the same person at different times. A first edition of Adam Smith's *Wealth of Nations* would be highly esteemed by an economist, but to an illiterate man it would be only an old book which he might be glad to exchange for a bag of tobacco.* A watch, the market value of which is $100, might be a priceless possession to the owner because of association. Even an article which at one time may have little subjective value, at another time may be of great subjective value. A glass of water which is ordinarily a free good, might on a wrecked ship have a very high subjective value.

Price is value expressed in terms of money. When an article is displayed in a store and is priced at $100, a customer may say, "It is not worth that to me," which means that its value in use to him is less than that of other things which the $100 would purchase.

Subjective value appears to be far removed from market value, but it really is a determining factor in fixing market value, as will be seen.

Market Value when there Are Many Purchasers and One Seller.—Let us imagine a case in which a man has an automobile for sale and there are many persons who wish to buy an automobile, their subjective values differing in each case. The seller would take $100 rather than not make a sale, but he does not let that fact be known, naturally wishing to secure as large a price as possible.

*A daily newspaper expressed unconsciously the distinction when it remarked: "The hide of a rabbit is not worth two cents on the market but it is worth more than a million dollars to the rabbit."

Seller's Subjective Value	Buyers' Subjective Values
$100	$500
	450
	400
	350
	300
	250

Here we have six persons wishing to purchase, their subjective valuations in each case differing and each desiring to purchase for as little as possible, but none being willing to pay more than the sum indicated. In an open market it is quite apparent that the man who would pay only $250 would not get the machine, because five persons would bid over his valuation. The automobile will sell at a price at which the number of buyers and sellers will be the same and this will be somewhere between $500 and $450, depending upon the bargaining ability of the seller and the most capable buyer, or the man who would pay $500 rather than not get the automobile.

Market Value when there Are Many Sellers and One Buyer.—Let us take the reverse of the example given above and consider market price when many sellers are present and only one buyer. Suppose the buyer will pay $400 rather than not secure the automobile and the sellers will part with their machines at prices varying from $250 to $500.

Buyer's Subjective Valuation	Sellers' Subjective Valuations
$400	$250
	300
	350
	400
	450
	500

Supposing competition is perfect, the price will not be below $250 and will be less than $300, since below $250 no sale will take place and at $300 there will be one buyer and two sellers.

Market Value when there Are Many Buyers and Many Sellers.—In actual market conditions there are usually many buyers and many sellers. Let us suppose there are many persons wishing to sell automobiles of the same kind and in the same condition and many persons wishing to purchase. This is always the case in the market for used cars. One man may be willing to sell his car at $800, but has no urgent demand for money and will keep it rather than accept a smaller sum; another has purchased a larger car and though he still has use for his old car will sell for $500, and another has lost his interest in automobiles because of an accident and will gladly sell for $100, though he, and all the others, wants to get as much as he can for his automobile. Other sellers have other subjective valuations. On the other hand, buyers have different intensity of desire, though desire alone is no factor in the market. It must be desire plus ability to purchase.

Sellers	Buyers
$100	$800
150	750
200	700
250	650
300	600
350	550
400	500
450	450
500	400
550	350
600	300
650	250

Sellers	Buyers
$700	$200
750	150
800	100

It is clear that the price will not be $100, for at this figure there would be one seller and fifteen buyers, who, in a perfect market, will compete to raise the price. At $150, there would be two sellers and fourteen buyers, and by following out this plan of exclusion, at length we would find that at $450 there will be eight buyers and eight sellers, and this will be the market price under the conditions assumed.

Competition Not Always Perfect.—In the stock exchange competition is perfect and there is always the same price for the same stock at any one time. Competition is perfect at an auction sale. Sometimes there are different prices for the same goods in the same city because of lack of knowledge of prices which others are charging. Social considerations also cause prices to be higher in one place than another. Prices may be higher for the same article on Fifth Avenue, Manhattan, than on Fifth Avenue, Brooklyn, or on State Street, Chicago, than on Clark Street in the same city.

Market Value of Complementary Goods.—Complementary goods are those which are used in connection with one another. Shoes are complementary goods; to the vast majority of persons one shoe has no value unless accompanied by its mate. But some complementary goods have value as separate articles and a different value when taken together. Thus a span of well-matched horses has more than twice the value of either horse considered separately, and a string of perfectly matched pearls has more

value than the value of a single pearl multiplied by the number of pearls. The value of complementary goods usually is considered with the whole as a unit and not one of its parts.

The Market Value of Future Goods.—Many goods are not in a condition to satisfy present wants. Iron ore can satisfy no present want, but it has a market value because it can be made to satisfy a future want. The market value of a future good depends upon its demand and supply, and the time which must lapse before it can be put in shape to supply a want and the expense involved.

The Relation of Cost of Production to Value.—The older economists thought that cost of production measured value. By cost of production they meant cost of the raw material, cost of labor, insurance, taxes, interest on investments, a reasonable profit, and other necessary expenses to put the goods upon the market. It is clear that cost of production often fails to explain value, as does cost of reproduction.

A painting by an old master may have a market value of $500,000 and this has no relation to the original cost of the canvas, the pigments, or the price which the painting commanded when first sold. A crate of strawberries may be sold on a Saturday night in June for much less than the cost of producing them. Other illustrations might be given ad infinitum.

There is, however, a relation between cost of production (often called normal value) and market value. *In all except monopoly goods* * the tendency is for market value to coincide with the cost of production *of the marginal plant.*

* Monopoly prices are considered in the chapter devoted to monopolies.

In goods freely produced (that is, with no monopoly features) if prices are above the cost of production, which includes a reasonable profit, other producers will be attracted into the business, and, on account of the increased supply, prices will fall. Should the price be below the cost of production, the least capable producer, or marginal producer, will in time be forced out of business, and, because of the resultant decrease of supply, prices will rise.

The Marginal Producer.—In the previous paragraph, the term "marginal producer" was used and this requires some additional explanation. Probably no two producers of goods ever had exactly the same cost of production at the same time. Among the factors that vary are efficiency of labor, proximity to raw material, nearness to market, managerial ability, economy in the use of coal or water power, purchasing ability, selling agencies, insurance, rent, and taxes.

Let us take, for example, the production of crude-oil of the highest grade, known as Pennsylvania Crude. The wells producing this oil may be a few hundred feet deep or may be a few thousand feet deep, the deeper they are the more the cost of drilling and up-keep, but the productivity does not vary directly or indirectly with the depth. Some are near to railroads and the cost of hauling materials is comparatively low, others are many miles from the nearest railroad and wagon-roads are few and poor.

These are but two of the more obvious differences in the cost of putting down an oil-well. The well that produces the most oil may have cost the less, or the reverse may be true, or a very expensive well may produce no oil. In the long run, however, drilling will not continue in territory

which does not promise to pay at least the cost of production.

Forty years ago one dollar a barrel was considered a fair price for crude-oil; a well producing only a barrel or so a day hardly paid the cost of operating, and many small wells disadvantageously situated were abandoned. As the price of crude oil rose, not only were new wells drilled but old ones were again operated after having been abandoned. At any one time the marginal well would be the one that it just paid to operate at the then current price of crude oil.

The following table will more clearly show the marginal well at different times:

Well No. 1	can	produce	oil	at	a	profit	at	$1 a barrel.
Well No. 2	"	"	"	"	"	"	2	"
Well No. 3	"	"	"	"	"	"	3	"
Well No. 4	"	"	"	"	"	"	4	"
Well No. 5	"	"	"	"	"	"	5	"
Well No. 6	"	"	"	"	"	"	6	"
Well No. 7	"	"	"	"	"	"	7	"

When oil is five dollars a barrel, well No. 5 is the marginal well. Well No. 6 will not be operated. If demand should increase and the price rise to six dollars a barrel, well No. 6 will then become the marginal well, or if price of oil should fall to four dollars, well No. 4 becomes the marginal well.

The Example of Oil Wells a Complicated One.—Many plants may be used for several purposes. A building constructed for a blacksmith shop may be turned into a garage, or a storage-house or any number of other things. An oil-well produces oil or gas, or both, but nothing else. It may cost $5,000 to drill a well, and the well may pay

cost of operating when completed, but may not pay interest on the $5,000. The well may still be operated if it pays enough to make it more profitable to operate it than to sell or take to some other place the material that can be removed. The cost of drilling will then be charged to profit and loss. Whether the well is operated or not, depends upon the ability of the owners to sustain the loss involved. All specialized plants, that is, those which cannot be used except for one purpose, are like the example given, and the marginal plant may not pay all the costs of production. Plants below the margin may be operated in other industries for a time, with the hope of better results or a rise in the market, but in the long run plants below the margin must succumb.

Restatement of the Law of Value.—Market value is the value at any one time in a market and it is fixed by the interplay of demand and supply. Normal value is determined by the cost of production at the marginal plant, and, since most goods are made to be sold and not for the use of the manufacturers, market value and normal value tend to be uniform, though there may be temporary fluctuations of market value both below and above the cost of production. It should, however, be borne in mind that this is not true of monopoly goods. which are considered in another chapter.

Summary.—A market is a place where sales are made. Markets may be local or general. Increased means of transportation tends to make markets general for goods which will bear transportation. The price of wheat, corn, cotton, and tobacco tends to be fixed by a world demand and supply. A shortage of the wheat crop in India or the

Argentine Republic influences prices in Liverpool and Chicago. For perishable articles the markets are more local. The price of strawberries in Detroit may differ from the price in Cleveland by more than the cost of transportation from the one city to the other, if the berries will not stand transportation without spoiling.

Prices in a market are fixed by demand and supply. An elastic demand is one which changes rapidly with price; an inelastic demand remains about the same regardless of price. For most articles there are substitutes and these have an important bearing on price. Value in use is value to the person who may use the article; value in exchange is what the article will bring on the market. Subjective value is another term for value in use. Price is value expressed in terms of money. Market value depends upon supply and demand. Normal value is measured by the cost of production of the marginal producer.

TOPICS FOR DISCUSSION, DEBATE, AND SPECIAL REPORTS

1. Make a list of articles for which the demand in your community is inelastic.
2. To what extent are substitutes used in your community?
3. Give some examples of differences in subjective values of the same commodity by different persons in your community.
4. Give some examples of differences in price for the same article in your city.
5. Show the relation between market value and cost of production of wheat, clothing, and furniture.
6. Titian's portrait of Giorgio Cornaro was sold to New York dealers in 1921 for $300,000. This was paid because the dealers thought it was worth that much as an investment.

What would be its subjective value to a person who had never heard of Titian?

7. A Chinese art collector saw a rare vase in a Brooklyn second-hand store and purchased it for five dollars. The next day he sold it for $1,800. The subjective value to the second-hand dealer was less than five dollars, but to an admirer of Chinese vases its subjective value was more than $1,800. As a matter of ethics, should the purchaser have informed the second-hand dealer concerning the market value of the vase?

CHAPTER IX

THE ORGANIZATION OF INDUSTRY

The Entrepreneur.—Land, labor, and capital must work together for the production of wealth. In agriculture in the United States this co-operation is generally brought about by the owner of the land. He hires what labor he needs, in addition to that which he himself can supply, owns the farm machinery and determines how the land shall be used and manages the business. He is landlord, capitalist, laborer, and manager. Likewise in small manufacturing plants and retail stores, the organizer of an industry not infrequently owns the land and capital and supplies part of the labor. In larger business enterprises more often the directing of business is given to a special class of professional men. These managers of business were once called undertakers, but since that term has now been assumed by one class of professional men, we usually call the manager of business by the French term *entrepreneur*.

The entrepreneur organizes and directs business, whether himself a part owner or not. The entrepreneur is sometimes called a captain of industry and this is appropriate because he commands the industrial forces. The success or failure of a business depends chiefly upon him.

Individual Proprietorship.—The simplest form of business organization is that of a single proprietor who is his own entrepreneur. He owns or borrows the capital,

secures the land, hires the laborers, and manages the business. No formal documents, no organization taxes or other preliminaries are required by law in this type of organization. The proprietor is responsible for all debts and to him belong all profits.

For example, should you desire to engage in the grocery business, the method of procedure is very simple. Hire a suitable store, purchase supplies, and open your shop for business. But be sure that you have ability as an entrepreneur, because upon this more than anything else depends success.

Partnerships.—A partnership is the association of two or more persons in a business enterprise. The enterprise in this form of organization is owned jointly and each partner has equal rights and responsibilities unless otherwise stated in the articles of partnership. The terms of partnership, such as the sharing of profits and losses, are stated in a legal document. In an ordinary partnership each partner is liable for a debt contracted by any partner, if it was contracted for the benefit of the business. His whole private fortune may be taken to satisfy such a debt, even if it was incurred without his knowledge.

Another serious disadvantage of a partnership is that death, or the bankruptcy of a partner, dissolves the partnership. Any dissatisfied partner may also cause a partnership to come to an end. So long as the partnership satisfies all, it works well, but a little friction may be fatal. It is no wonder that a partnership has long been called "a poor sort of ship."

Limited Partnerships.—To overcome some of the disadvantages of a general partnership, limited partnerships

have been created. Under a limited partnership special partners are admitted; they have no voice in the management and are not liable for losses in excess of the amount they have invested, but receive profits at a rate agreed upon. In every limited partnership there must be one or more general partners, who are fully liable for debts as in a general partnership.

Corporations.—Intermediate between partnerships and modern corporations came the old joint-stock companies. Like ordinary partnerships, each member of a joint-stock company was liable for all its debts, but ownership in the joint-stock company was based upon shares which could be sold without bringing the company to dissolution. The management of the company was intrusted to a board of directors elected by the stockholders.

The modern corporation is much like the old joint-stock company, but unlimited liability for debts has been eliminated and the stockholder is only liable to the extent of his investment.* The stockholders elect a board of directors and this board chooses the executive officers of the corporation. Stock may be freely sold and the corporation may continue in business for an indefinite period. Modern business enterprises such as insurance companies, railroad corporations, ship companies, steel mills, and others requiring immense capital would be impossible without this form of organization. The number of stockholders in a great corporation like the United States Steel Company

* In most states holders of bank stocks are liable to twice the amount of their stock; all the shareholders in national banks are so liable. In New York, and a few other states, stockholders are liable for unpaid wages of defunct corporations.

reaches hundreds of thousands and thus the small investor as well as the large investor may share in the ownership of a corporation.

Without the corporate form of organization, hazardous enterprises such as the telephone was once thought to be, and as mining and drilling for oil are known to be, would hardly be undertaken. Corporations are known to the law as "artificial" persons; they may sue and be sued; may inherit property; and may enter suit for slander.

Corporations are formed under state laws, must pay corporation taxes, and must file an annual report with the state authorities.

Despite the very great advantages which belong to the corporation as a form of business organization there are some disadvantages. Adam Smith, so long ago as 1776, observed that the hired managers of corporations were not so careful of other people's money as though it were their own. This objection is not an important one now. The entrepreneur knows that he is responsible for the success of a business and his professional pride and self-interest cause him to give his best services.

A more serious objection is voiced in the familiar cry that "corporations have no souls." Under the protection of a corporation mask, men have been known to take unfair advantage of their competitors and of the public and do many things which as individuals they would shun. However, with stricter laws relating to corporations and, let us hope, a more enlightened conscience, these evils are less in evidence now than they once were.

Stocks and Bonds.—The capital necessary to start a business under the corporation plan is usually secured by

selling stocks and bonds. There are two kinds of stock: common stock and preferred stock. Preferred stock has an advantage over common stock in that it has the first chance to secure profits. If, for example, a 6-per-cent preferred stock be issued, the common stock will receive no dividends until 6 per cent has been paid to the owners of preferred stock. Preferred stock is usually non-participating, which means that after having received its specified percentage, it shall have no further share in the profits no matter how large they may be. To make preferred stock still more attractive to the investor, it is sometimes made convertible, which makes it exchangeable for common stock at the option of the owner. Common stock is sometimes more valuable than preferred stock and the reverse is sometimes true; it all depends upon the rate of dividends the respective stocks command. It will be seen that preferred stock has the stronger appeal to the conservative investor, while the man who is confident of the money-making powers of the corporation or is of a speculative nature will favor the purchase of common stock.

Oftentimes the organizers of a business wish to secure control of the corporation for themselves and they confine the voting power to one class of stock, which is called *voting stock*.

Sometimes a corporation, which is earning large dividends on its stock, will issue *stock dividends*. This means that additional stock is given to those who already own stock without any additional investment on their part. Thus if a corporation has issued 1,000 shares of stock which has been sold for $100 a share, its capital would be $100,000. Should it pay dividends at 20 per cent, the

Certificate
No. 101
For
Fifty Shares
Issued to
John Doe

Dated
May 16, 1920
Transferred from
Arthur White
Dated
March 12 1919

No Original Certificate.	No Original Shares.	No. of Shares Transferred.
54	50	50

Received
Certificate No. 101
For
Fifty Shares
May 16, 1920
John Doe

FORM 873

INCORPORATED UNDER THE LAWS OF DELAWARE
Number 101
Shares 50
Robertson-Cole Distributing Corporation
Capital Stock, $10,000
Shares $100 Each
This is to certify that John Doe is the owner of Fifty shares of the Capital Stock of
Robertson-Cole Distributing Corporation
transferable on the books of the Company by the holder hereof in person or by duly authorized Attorney upon surrender of this Certificate properly endorsed.
Witness the seal of the Company and the signatures of its duly authorized Officers this Twentieth day of May 1920
Fully Paid and Non-Assessable
William Wilkins
President

A STOCK CERTIFICATE

return would seem large, but a 100-per-cent stock dividend would increase its capitalization to $200,000 and its earnings would now appear to be only 10 per cent.

Bonds are very different from stocks. Stocks are evidences of ownership in a corporation, and the owners of stocks share in profits. Bonds are evidences of a debt owed by a corporation. Bonds are sold in order to secure capital, which has no share in management. The bondholder must receive interest on his bonds before anything goes to the owners of stocks. If the owners of bonds are not paid interest and principal when due, they may enter suit before a court of law to place the business in the hands of a receiver or to protect their interests in some other way.

Profit-Sharing.—Business enterprises, organized as individual proprietorships, partnerships, or corporations, may arrange to admit their employees to a share of the profits. Profit-sharing originated in France in the mind of a house painter and decorator by the name of Leclaire. The plan of sharing profits with his men was first tried in 1843 and met with success from the start. The men of the "Maison Leclaire" found it increased their earnings and Leclaire benefited because of the greater interest of the men in their work and their attention to economy of time and materials. The success of the "Maison Leclaire" plan led to its adoption by other French houses and it soon was introduced in the United States. The A. S. Cameron Company of Jersey City was the pioneer and the plan was successful until the death of Mr. Cameron.

Profit-sharing has not been an unqualified success. The scheme works fairly well where the working men are intelli-

gent and possessed of unusual skill, but it does not appeal to the unskilled laborer, and when there are no profits to divide the laborers object. However, profit-sharing has been remarkably successful in many American plants and its advocates are confident of greater success and wider application.

A new plan of profit-sharing was announced in August, 1920, by the International Harvester Company. This corporation intends to distribute $60,000,000 of its stock among its 40,000 employees by annual gifts during a period of eight or ten years. The gifts of stock each year will vary with the profits of the year, and in addition cash bonuses will be distributed. The corporation expects to profit by the plan. As President McCormick expressed it: "This distribution furnishes a distinct incentive to each and every employee to do his full share, for upon individual effort and team-play will depend in a large measure the amount of the annual extra compensation to each employee who is entitled to participate." In time the employees will own 20 per cent of the stock of the company and will have a voice in its management. The United States Steel Company has sold considerable stock to its employees, but this is not profit-sharing, as it has been sold, though on very favorable terms, and not given as a share in the profits.

Welfare Work.—Many corporations do more for their employees than pay wages. This service is generally known as welfare work. It is necessarily limited, at least in its full application, to corporations which are doing a large and prosperous business. Welfare work includes part or all of the following:

1. *Medical Work.*—This includes medical examination, rest-rooms, washing and bathing facilities, home nursing, optical and dental care.

2. *Savings and Insurance.*— This covers insurance against sickness, old age, and accidents.

3. *Profit-Sharing.*—Whereby the laborer shares in the profits. Usually 8 per cent goes to the owner before labor receives any share and then laborers share in proportion to wages and term of service.

4. *Recreation.* — Clubs, entertainments, dances, and concerts.

5. *Education.*—Training for jobs and training in jobs. Training in citizenship, etc.

6. *Care Outside of Working Hours.*—Housing of employees. Recreation and care of families.

Co-operation as a Method of Production.—Co-operation is a form of business organization whereby the working men supply the capital and manage the industry. It has met with considerable success in England, Belgium, and other European countries, especially in co-operative stores. In the United States co-operative stores have succeeded in some places and have failed elsewhere, depending for success or failure upon the skill with which they have been managed and upon local conditions. Co-operation in manufacturing enterprises has not been very successful in the United States. Skill in management is not possessed by many, and the man who has such skill can demand and receive a large remuneration. Men who start co-operative manufacturing plants are usually unwilling to pay for the best talent and they seldom possess it themselves.

Co-operative creameries and cheese factories have been

very successful, but they are not co-operative in the real meaning of the term. A group of farmers builds the creamery and hires a man to run it. The farmers share in the earnings, but do not work in the plant. The farmers are really capitalists, and that they take milk to the plant in no way changes their status.

Industrial Democracy.—The plan of giving employees a voice in factory management was adopted in England as a reconstruction policy after the Great War, but its most extensive application has been in Belgium.*

In the United States, recently, a number of industrial plants have adopted the plan and this includes some of the largest in the country, such as the Standard Oil Company of New Jersey and the Goodyear Tire & Rubber Company of Akron, Ohio.

The method is not uniform. In a number of plants, joint committees, composed of equal numbers of employees, have charge of all matters pertaining to employment, working conditions, hours of labor, safety and accidents, etc.; profit-sharing is also usually included. In other plants an organization somewhat similar to that of the United States Government is followed: There is a Cabinet consisting of the executive officers of the company; a Senate composed of heads of departments and foremen; and a House of Representatives elected by the employees.

It has been found that labor representation tends to give the laborer a greater interest in his work and in the plant as a whole; helps him to overcome the sense of isolation;

* See "Industrial Councils in Belgium," by Henry de Man, *The Survey*, July 3, 1920.

makes it possible to adjust matters of difference without resorting to strikes and lockouts; increases production and lessens waste and the labor turn-over.

Mr. Paul W. Litchfield, factory manager of the Goodyear Tire & Rubber Company, bears testimony as to its success in that factory and to the spirit of co-operation that has resulted. "Nearly every decision has been unanimous, and where there have been differences of opinion, in each case parts of both groups were voting the same way."* Not only has labor representation worked well with highly skilled labor, but Mr. John Leitch, in his valuable work, *Man to Man*, shows how it has been as great a success in plants where it might reasonably be thought there would be little chance of success.

At the Industrial Conference of 1919, called by the President of the United States, it was found "That joint organization of management and employees, where undertaken with sincerity and good-will, has a record of success." The report of the conference further states "Employee representation must not be considered solely as a device for settling grievances. It can find success only if it also embodies co-operation in the problem of production. Whatever subjects the representatives come to feel as having a relation to their work, and their effectiveness as members of the plant, may come within the field of committee consideration.

"It must be undertaken, if at all, in a thoroughgoing way. Representatives must be selected by the employees with absolute freedom. In order to prevent suspicion on

* Litchfield, *The Industrial Republic*, pp. 91, 92. See Appendix for the Goodyear plan.

any side, selection should be by secret ballot. There must be equal freedom of expression thereafter. All employees must feel absolutely convinced that the management will not discriminate against them in any way because of any activities in connection with shop committees. Meetings should be held frequently and regularly, not merely when specific disputes are threatened. Both sides must be prepared to study the problems presented and must give them patient, serious, and open-minded consideration."

No plan of this kind can succeed unless the representatives of capital are prepared to give a "square deal" to labor and unless labor is willing to give a fair day's work for a fair day's pay.

"The idea of employee representation has aroused opposition from two sources: On the one hand, in plants too large for direct personal contact, employers who still adhere to the theory that labor is a commodity, hold off from any co-operation with employees. This view is steadily disappearing and will, it is to be hoped, wholly disappear. On the other hand, a number of trade-union leaders regard shop representation as a subtle weapon directed against the union. This theory is apparently based on the fear that it may be used by some employers to undermine the unions. Conceived in that spirit no plan can be a lasting agency of industrial peace." *

The Relation of the State to Industry.—In many countries the government directly engages in industry. In most European countries the telephone-lines, the telegraph, the railroads, and many other forms of industry are owned and operated by the State. The United States

* Report of the Industrial Conference, p. 10.

conducts the postal business. Most American cities supply water to their inhabitants, while some own and operate electric light and gas plants.

The question of extending or contracting the sphere of government participation in industry is one of the leading questions of our time, which will be discussed in a subsequent chapter.

Indirectly the State is a partner in all production of wealth. Among the services which it renders may be mentioned the following:

1. It provides courts whereby contracts may be enforced. There could be no production of wealth in the modern sense without assurance that agreements will be kept.

2. It regulates the holding, transfer, and bequest of property.

3. It provides a system of currency, a standard of weights and measures, builds and repairs roads, bridges, lighthouses, makes rules of navigation, etc.

4. It protects persons and property from violence both by internal and external foes.

5. It provides agencies to extinguish fires, to protect the public from the peril of floods.

6. It maintains agencies to keep the people informed concerning weather conditions, trade opportunities in other countries, crop conditions, methods of fighting insects and fungus, etc.

7. It constructs irrigation works, improves rivers and harbors, etc.

8. It cares for the public health by creating agencies to prevent the spread of contagious diseases and by providing means for the care of those who are ill.

Summary.—Business may be conducted in many ways. There may be a single proprietor, a partnership, or a corporation. Most business in towns and cities is done by corporations. Farming is chiefly managed by a single proprietor. Each form of organization has its advantages and disadvantages. Stocks are evidences of ownership in corporations. Bonds are claims against a corporation. Profit-sharing is the admission of employees to a share in the profits. Co-operation is the management of a business by the working men. Its weakness is that it generally dispenses with the services of an entrepreneur. The giving of workmen a share in the management of business may be secured by a shop committee, chosen by the employees. This brings about a degree of democracy in industry. The State is an important participant in all industry. Without it there could be little production of wealth.

TOPICS FOR DISCUSSION, DEBATE, AND SPECIAL REPORTS

1. Why are drug stores almost universally organized as corporations? Is there any reason why more drug stores are corporations than grocery stores?
2. What welfare work is done by corporations in your city? How do the employees regard it?
3. Make an investigation of profit-sharing in your city.
4. Give an account of any plants in your city in whose management the laborers have a share.
5. What lines of business activity are undertaken by your city? Does the city do this work well? What improvements in its methods can you suggest?
6. The post-offices of the larger cities are conducted at a profit to the national government, but in many parts of the country

the postal service is managed at a loss. Show why it is socially desirable that the postal service be maintained even at a loss? Why may it be economically desirable?

7. Local dealers often complain that mail-order houses hurt local trade. They say that local dealers pay taxes and are entitled to local patronage. Give your opinion of their arguments.
8. Show some services which the government renders to industry not mentioned in the text.

CHAPTER X

THE PRINCIPAL AMERICAN INDUSTRIES—HUNTING, FISHING, MINING, AND LUMBERING

There are economic and uneconomic ways of securing a living. The person who makes a living by an economic method renders some service to the community. This service may be the production of some material thing or the rendering of some personal service. Unfortunately some people render no economic service but live at the expense of others. In this latter class belong loafers, thieves, gamblers, and swindlers of all kinds. They are an injury to the economic life of a people not only because they render no service but because they prey upon those who are rendering a service. Though small in number they are a direct and an indirect expense to every community.

Classification of Economic Industries.—Industries may be classified as follows:

1. Those which make available elementary utility. Such industries are hunting, fishing, lumbering, mining, agriculture, and cattle-raising.

2. Those which produce form, place, and time utility. Such industries are those engaged in manufacturing, transportation, storing, and merchandising.

3. Those rendering personal services. To this class belong the services rendered by physicians, teachers, clerks, servants.

4. Risk-takers. To this class belong all those engaged in any line of insurance.

Extractive and Genetic Industries.—An industry which reduces the amount of material furnished by nature, without any replacement, is called an extractive industry; an industry which replaces any loss, or increases the supply, is a genetic industry. Mining is an extractive industry. Lumbering is extractive, but forest culture is genetic. Hunting is extractive, as is also fishing, at least in inland lakes and rivers, but cattle-raising, poultry-raising, and fish culture are genetic. The future of industry depends upon economy in using materials that cannot be replaced and in extending the genetic industries.

Hunting.—Hunting was the first employment of man. His chief want was to secure food and he took the direct method of getting it. Hunting included searching for nuts, fruits, and edible plants as well as for animals. Able to overtake few animals and unequal in strength to most of the larger animals, the lot of primitive man was a hard one. He hunted for food and was hunted by strong and fierce animals. His brain alone made him superior to other animals. Unless his brain had been superior, he would have been exterminated. The unknown benefactor who invented the bow and arrow gave man supremacy over the beasts. This invention, some historians think, has surpassed any other in its services to mankind.

The American Indians before the time of Columbus lived chiefly by hunting and fishing, though they already had a crude knowledge of agriculture. The early colonists were mighty hunters and the demand for furs for Europe made the fur trade very important. Great fur-trading com-

panies, of which the Hudson's Bay Company was the most important, played a very great part in the history of America.

Hunting requires a large area to support a small population, and as the population increases the animals are driven farther and farther away. Hence the business of hunting has gradually come to an end in the more densely populated parts of the country and hunting here is only a pastime, the average hunter spending more in securing game than it is worth on the market. Much of the game has entirely disappeared. The bison which roamed the plains is no more. The passenger-pigeons, whose flights darkened the skies so late as 1876 are gone forever. The water fowl and deer are few where once they were many. Though much of this destruction was without adequate excuse, it should be remembered that a better animal than the bison has taken its place. The bison and the great herds of cattle now on the plains could not both be there at the same time. Domesticated animals are more dependable than wild ones. Domesticated fowls produce more eggs and their flesh is more palatable than the flesh of wild fowls. Domestic sheep and swine are in all respects superior to their wild ancestors.

There is still considerable trapping of small animals such as foxes, musk-rats, and raccoons, and the value of the furs so obtained is considerable in the aggregate, but it is only a fraction of what it once was.

Fishing.—Fishing is also a very ancient method of getting food. It doubtless requires more skill than hunting, but the returns to primitive man were uncertain. The fisheries of America were important in colonial times and

are still valuable. Fishing is both a business and a pastime in the United States. Many streams and lakes have been "fished out," but they may be restocked, unless their waters have been hopelessly defiled by the pernicious habit of dumping sewage and other refuse into them. Even the Great Lakes may lose their value as producers of fish unless scientific methods of keeping up the supply are employed. Lake Ontario was once a great producer of whitefish, but its supply of whitefish was practically exhausted as long as forty years ago, and only recently are these valuable fish again appearing in its waters. Both the United States Bureau of Fisheries and state hatcheries are engaged in restocking our lakes and rivers. During the year ending June 30, 1918, the former distributed 4,098,105,158 eggs, fry, fingerlings, yearlings, and adults.

The oceans afford an apparently inexhaustible supply of many varieties of edible fish. Doubtless many fish that are not now used for food can be so used. The dogfish, for example, is usually rejected, but properly prepared it is the equal in all respects of many more highly esteemed fish.

The salmon fisheries of Alaska are the most valuable of any of the American fisheries, and the canned Alaska salmon is sold in every village in the country. The total value of Alaska fish taken in the year 1917 was $51,466,980, most of which was salmon. The fisheries produce much fertilizer as well as food, as fish are rich in phosphates. The last census gave the number of persons engaged in the fishing industry as 166,343.

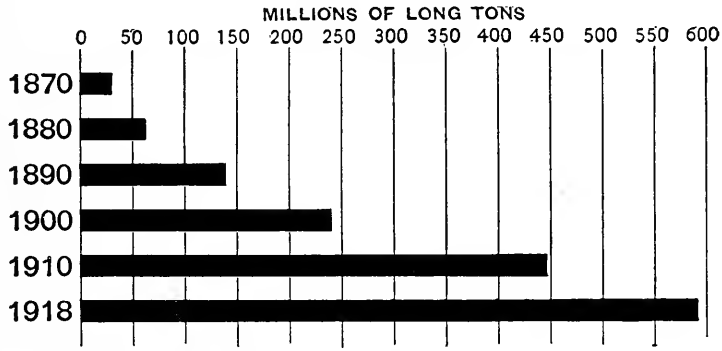
Mining.—Coal is the leading mineral product of the United States. Though coal is mined in many states,

Pennsylvania leads all in coal production. The demand for coal has steadily increased and with it has come increased production.

COAL PRODUCTION IN THE UNITED STATES

Year	Tons of Bituminous	Tons of Anthracite
1901	189,567,957	51,221,353
1906	281,306,058	69,339,152
1911	372,420,663	75,433,246
1916	395,200,380	79,459,876
1918	492,670,146	88,939,117

Only about 5 per cent of the coal mined in the United States is exported in normal years and our imports are also small. Notwithstanding increased production, prices of both anthracite and bituminous coal have advanced

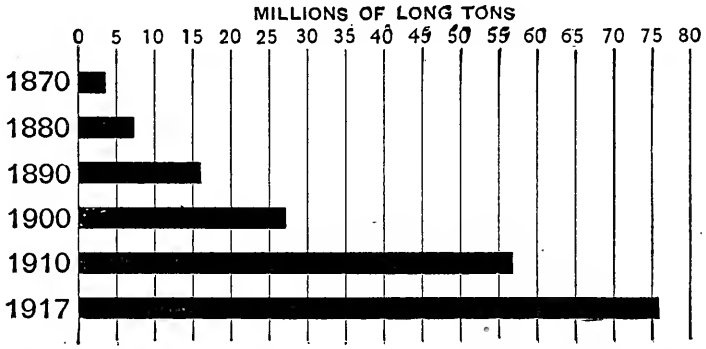


COAL PRODUCTION OF THE UNITED STATES

steadily since 1913. The demand for coal for both industrial and domestic purposes has grown and during the war there was an extraordinary demand. The return to normal conditions will probably not reduce prices much, if

any, as wages and transportation charges will hardly be lowered, and every year sees more of the easily worked veins exhausted, which means recourse must be had to deeper veins and poorer mines. Natural gas, extensively used in many parts of the United States, is being rapidly exhausted. There is no reason to doubt that long before the coal supply approaches exhaustion, cheaper and better means of securing heat, light, and power will be found. Water-power, now that it can be converted into electric power, is once more approaching the importance it possessed before the general use of steam-power, and it promises to grow in importance. The utilization of the power of the winds, the immense power exerted by the tides, as well as the now unharnessed power of hundreds of rivers, will in time furnish all the light, heat, and power needed and at a moderate price.

Not less important than coal is the iron ore of the United States. Indeed coal and iron are the pillars upon which the manufacturing industries of the country rest. Iron has been produced from native ores from the colonial period. The building of railroads during the decade 1830–



PRODUCTION OF IRON ORE IN THE UNITED STATES

1840 both increased the demand for iron and made available new supplies. For many years Pennsylvania led all states in production of iron ore, but the opening of the Lake Superior ore region caused Michigan to take the lead. The Michigan ore is easily worked and is loaded from open pits by steam-shovels directly into the cars, which carry it to the bunkers at the loading stations on the Lakes, from which it slides down chutes into the holds of the ships. The Lake Superior region furnishes considerably more than half of all the iron ore used in the United States. Alabama and Pennsylvania produce large quantities of iron ore. The output of iron ore has risen from 16,000,000 tons in 1890 to over 75,000,000 tons in 1918.

Copper-mining began in the Lake Superior region about 1850 and by 1866 had reached a production of 8,000 tons. Since then it has enormously increased, and the rich mines of Montana have made that state a most important copper-producing region. The output in the United States for 1917 was 842,018 tons.

Gold became an important product by 1853, when the value of the gold mined amounted to $889,000. By 1855 it had increased to $55,000,000; since then its production has fluctuated very much. In 1917 there was produced in the United States over $83,000,000 worth of gold.

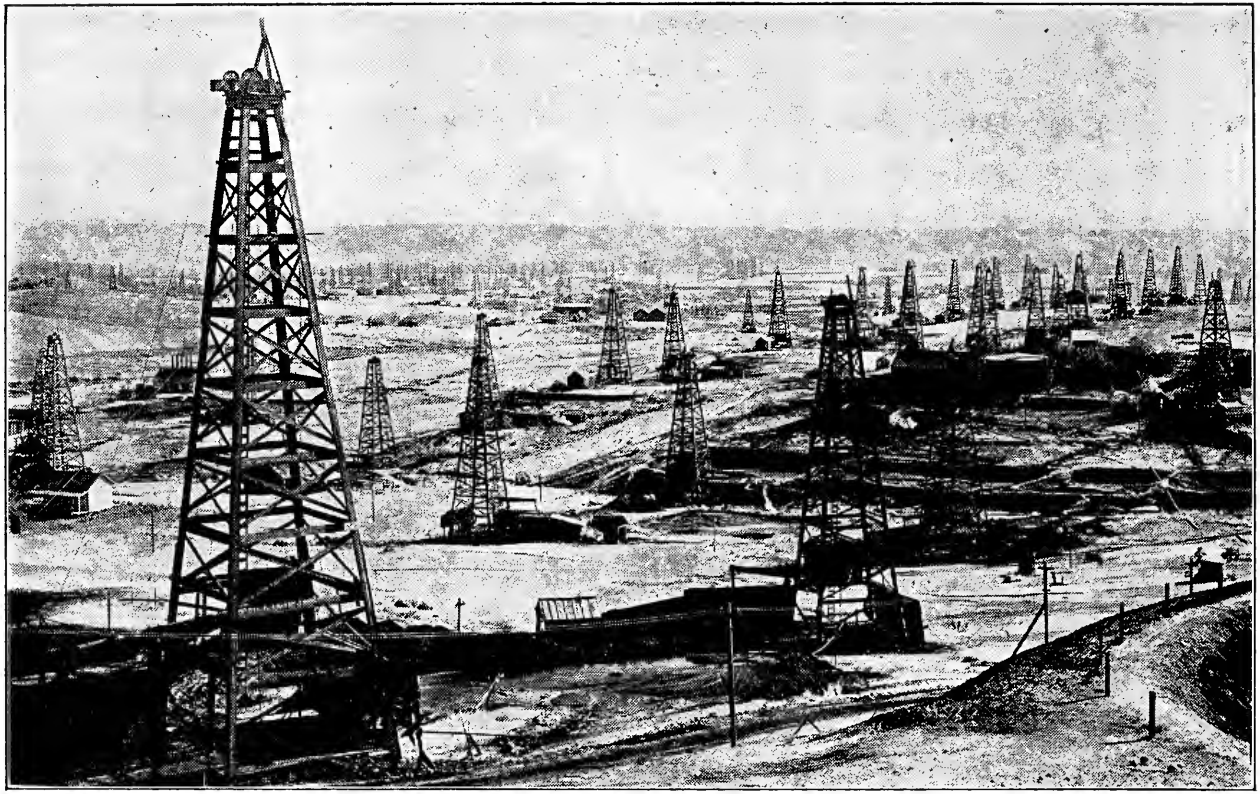
Space does not permit discussion of other mineral products, except that its great and growing importance requires some note must be made of petroleum production.

Though petroleum was long known to exist in Pennsylvania and was collected from surface outcropping and sold as a medicine under the name of "Seneca Oil," the first well was not drilled until the famous Drake well in 1859. The

production of oil in 1859 was 2,000 barrels, which sold at twenty-nine dollars a barrel. The market was not able to absorb the large production of the next few years which rose to 3,000,000 barrels in 1862, when the price fell to ten cents a barrel at the well. The building of pipe-lines improved transportation, and improvements in refining and better lamps gave a steady demand and prices rose to remunerative figures.

Until the invention of the internal-combustion engine gasoline was of little importance and was often a waste product. In the last decade the demand for gasoline has been tremendous and gasoline is now more valuable than kerosene. Increased demand for crude-oil for fuel purposes and for oil for the manufacture of gas, as well as the demand for lubricating-oils and gasoline has caused doubt as to whether the wells could continue to furnish an adequate supply. The Great War was "a gasoline war," and most of the great nations of the world are now looking for supplies of their own wherever indications show that oil may exist. In the meantime, the wells of the United States are producing increased supplies, but the price has steadily risen, as the demand has increased more rapidly than the supply.

In 1917 the total production of crude-oil in the United States was 335,315,601 barrels, valued at $522,635,213. Pennsylvania, which long led in petroleum production, is now surpassed in that respect by Oklahoma, California, Kansas, Texas, Illinois, Louisiana, and West Virginia, in the order given. Production in Pennsylvania, including contiguous territory in New York, declined from 28,458,208 barrels in 1890 to 8,612,885 barrels in 1917, and this despite an increased price for oil and its stimulating

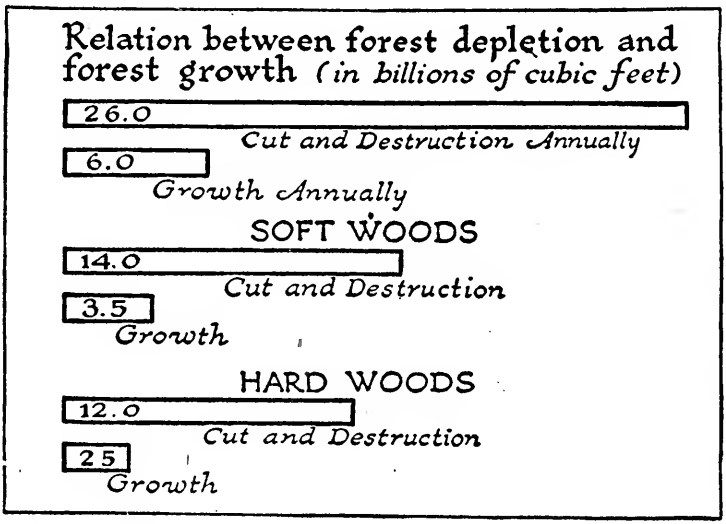


A VIEW OF PART OF THE BAKERSFIELD OIL REGION OF CALIFORNIA

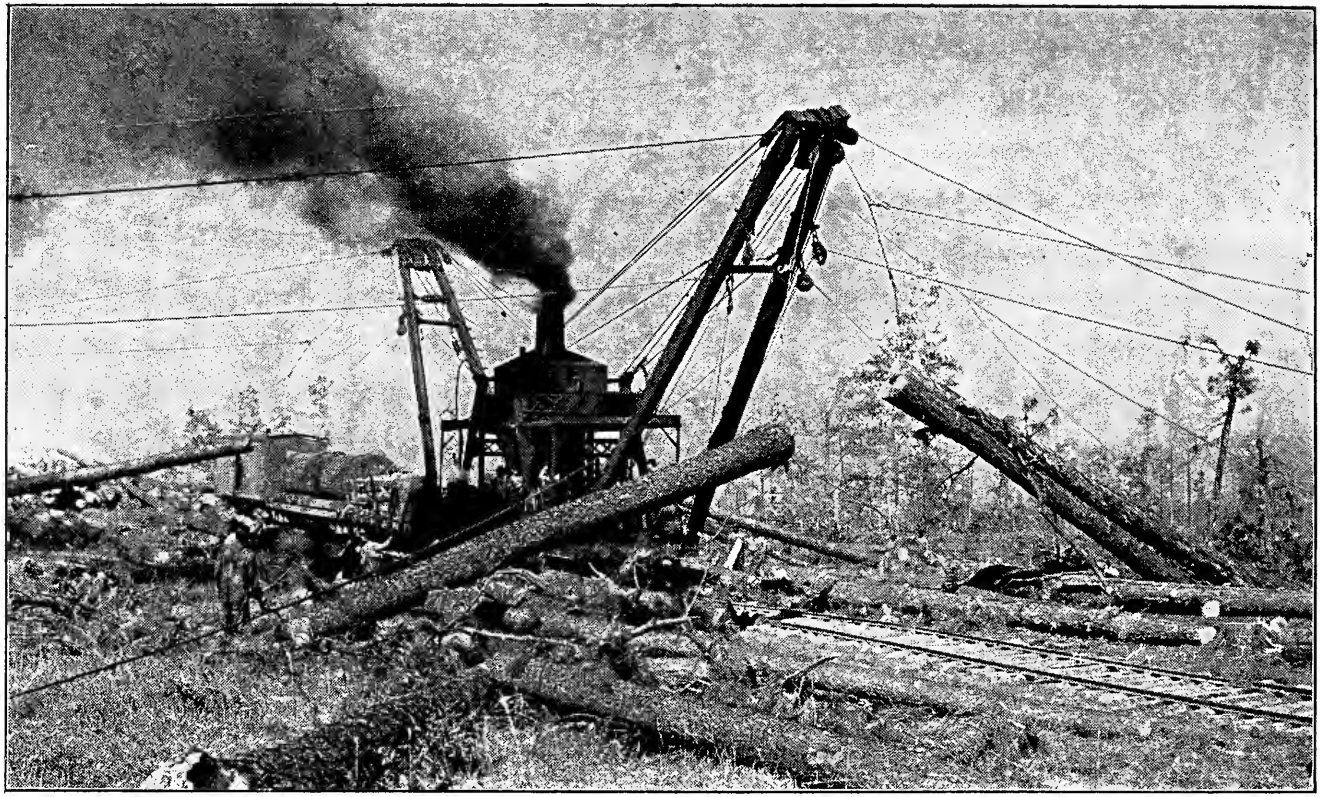
California is now one of the greatest oil-producing states

effect on drilling. There is little hope that petroleum production can keep up with demand. Increased supplies may come from the shales of Colorado and new fields may be opened, but old fields are sure to decrease in productivity. The only secure hope for the future lies in economy chiefly through the invention of a more efficient internal-combustion engine and in the discovery of substitutes for gasoline. Alcohol, which can be produced in abundance from vegetables, grain, and fruit, seems to promise best as a substitute.

Lumbering.—The early colonists found the entire eastern part of what is now the United States covered with a dense growth of timber. They had no need to economize in the use of wood as there was plenty and to spare. In many parts of the country the trees were regarded as an encumbrance and were cut and burned, or girdled and let die in order to make room for agriculture.



FROM "TIMBER DEPLETION, LUMBER PRICES," ETC.



From a photograph by Ewing Galloway

A "SKIDDER MACHINE" DRAGGING LOGS FROM WHERE THEY ARE CUT TO THE LOGGING COMPANY'S RAILROAD TRACKS

Much of the timber that has survived until our time is in places remote from settlements, or where the soil is so poor as to make it not worth while to remove the trees. A considerable trade in lumber existed in colonial times. As early as 1652 there was a sawmill in Virginia "built at a cost of forty-eight beaver skins." The first sawmill in New England was in operation at Dorchester in 1628. Dutch colonists built many mills along the Hudson valley. The first settlers in Maine and New Hampshire were lumbermen.

Lumber for export consisted of materials for ships, such as masts and spars, staves, shingles, hoops, and boards.

As the trees became scarce in one locality, the lumbering industry steadily pushed its way into more remote places. Unfortunately forest culture, the genetic side of the industry, has not kept step with forest destruction.

"Less than 5 per cent of the virgin forests of New England remain, and the total stand of saw timber in these states is not more than one-eighth of the original stand. New York, once the leading state in lumber production, now manufactures only 30 board feet per capita yearly, although the requirements of its own population are close to 300 board feet per capita. The present cut of lumber in Pennsylvania is less than the amount consumed in the Pittsburgh district alone. The original pine forests of the Lake States, estimated at 350,000,000,000 feet, are now reduced to less than 8,000,000,000 feet, and their yearly cut of timber is less than one-eighth of what it used to be. These four densely populated regions, containing themselves very large areas of forest land, are now largely dependent upon timber grown and manufactured elsewhere

and are becoming increasingly dependent upon timber which must be shipped the width of the continent.

"The bulk of the building lumber and structural timbers used in the Eastern and Central States during the last fifteen years was grown in the pine forests of the South. The virgin pine forests of the South Atlantic and Gulf States have been reduced from about 650,000,000,000 board feet to about 139,000,000,000 feet. The production of yellow-pine lumber is now falling off and within ten years will probably not exceed the requirements of the Southern States themselves.

"The United States at one time contained the most extensive temperate zone hardwood forests in the world. One region after another has been cut out. The production of hardwood products on the past scale cannot be long continued. The scarcity of high-grade oak, poplar, ash, hickory, walnut, and other standard woods is now placing many American industries in a critical condition.

"The depletion of forest resources is not confined to saw timber. Since 1909, the country has ceased being self-supporting in newsprint paper and now imports two-thirds of the pulp, pulp wood, or newsprint which we require. This condition is due in part to timber depletion, in part to failure of the paper industry to expand in our Western forest regions as the lumber industry has expanded. In 1919 the production of turpentine and rosin had fallen off 50 per cent. Within ten years the United States will lose its commanding position in the world's market for these products and may in time be unable to supply its domestic requirements." *

* "Timber Depletion, Lumber Prices, Lumber Exports and Concentration of Timber Ownership." Report on Senate Resolution 311. Government Printing Office, 1920.

Timber Depletion and Prices.—Prices, both wholesale and retail, have increased as the supply has diminished. It will be seen from the following table, that increased prices of transportation have been an important factor in retail prices. The table is for prices in southern Minnesota and the increased prices are partly due to the increased amount of Western lumber which was imported in order to supply needs which a few years ago were amply supplied by neighboring forests.

Prices throughout the United States have risen to about the same extent as in Minnesota. The prices are generally conceded to be unreasonably high, and they have partly been caused by the bidding up to the present figures by

RETAIL PRICES OF LUMBER

Years	Average Retail Selling Price		Average Transportation Cost		Portion of Average Retail Selling Price Absorbed by Transportation	
	Per Thousand	Per Cent Increase	Per Thousand	Per Cent Increase	Per Cent	Per Cent Increase
1905.....	$26.03	0.0	$3.25	0.0	12.5	0.0
1906.....	31.68	21.6	4.25	30.8	13.4	7.2
1907.....	34.64	33.0	4.00	23.0	11.5	8.0
1908.....	31.85	22.3	4.00	23.0	12.6	0.8
1909.....	30.43	16.9	4.50	38.5	14.7	17.6
1910.....	31.71	21.8	4.75	46.0	15.9	20.0
1911.....	31.17	19.6	4.75	46.0	15.2	21.6
1912.....	30.75	18.1	5.75	77.0	18.7	49.6
1913.....	32.28	23.9	6.75	107.8	20.9	67.2
1914.....	31.83	22.2	8.00	146.0	25.1	100.8
1915.....	30.44	16.9	8.50	161.5	27.9	132.2
1916.....	31.43	20.7	7.50	130.5	23.9	91.2
1917.....	38.58	48.0	8.00	146.0	20.8	66.4
1918.....	46.51	78.6	10.75	231.0	23.1	84.8
1919.....	54.42	109.0	11.75	262.0	21.6	72.8

From a photograph by Ewing Galloway

MORE THAN HALF THE FOREST FIRES OF THE UNITED STATES, ACCORDING TO THE FOREST SERVICE, ARE CAUSED BY NEGLECTED CAMP-FIRES

A forest fire like this destroys millions of feet of timber and makes ugly a mountainside which had been beautiful

buyers themselves. "It is a little too much strain on human nature to expect that producers shall refuse to accept the highest prices offered for their goods."

The depletion of timber in the United States, in the opinion of the experts of the Forest Service, has not resulted from the use of our forests, but from their devastation, caused by forest-fires and by methods of cutting which destroy or prevent new timber growth. It is said that the enormous area of forest land in the United States, much of it unsuited to other uses, would provide an ample supply of wood, if it were kept productive.

The Forest Service of the United States has done much to preserve the forests which belong to the nation and to increase the area of forest lands by setting out millions of young trees. In 1919 there were about 160 national forests, with a total area of 162,000,000 acres. The forests belonging to the nation are not merely preserved, but are made useful. The trees which are matured are cut and the timber marketed, but as a new crop is always growing, the forests are not destroyed.

Summary.—There are two ways of securing a living: one is economic and the other is uneconomic. Every person who helps to produce some useful object or who renders some helpful service is making a living by an economic method.

The economic industries are either extractive or genetic. Hunting, fishing, lumbering, and mining are extractive industries. Stock-raising, fish culture, agriculture, and forestry are genetic.

Hunting is the most ancient method of getting food and clothing. It can be the principal industry only when

population is sparse. Hunting is now chiefly a pastime in the United States, but it was once an important industry. Fishing is both a pastime and an industry. The supply of game and fish may be increased by making it illegal to hunt or fish during certain periods of the year and by stocking woodlands and streams.

Mining is an extractive industry. Economy in the use of products of the mines is necessary. There is no genetic side to the mining industry.

Forestry is the genetic side of lumbering. As a result of a campaign of education conducted by the Boone and Crockett Club, of which Theodore Roosevelt was a leading member, Congress in 1891 passed the Forestry Reserve Act. Under this act Presidents Harrison, Cleveland, and McKinley reserved 35,000,000 acres of forest lands. The greatest advance in forestry was made in President Roosevelt's administrations. In 1898 Mr. Gifford Pinchot became chief of the Division of Forestry, which was attached to the General Land Office of the Department of the Interior. In 1901 the Division of Forestry became the Bureau of Forestry, and in 1905 Congress made it the Forest Service. The duties of the Forest Service include protection of the forest lands from fire and from lumber thieves. The Forest Service has made a study of forestry problems and has promoted forestry on private and State lands as well as upon the national domain. Through the work of the Forest Service not only is the supply of timber conserved, but the watersheds are protected. When all trees are removed there is "low water or no water at all during the long dry periods, and destructive floods after heavy rains." The floods wash the top-soil into the

rivers, with the double injury of depriving the land of much of its most fertile elements and filling up the bottoms of the rivers.

TOPICS FOR DISCUSSION, DEBATE, AND SPECIAL REPORTS

1. What are the chief industries of your city? Of your state?
2. Have there been any changes in the kinds of industry followed in your community during the last fifty years? What are the reasons for these changes?
3. Are there any people in your state who make a living by hunting or fishing? How does their number compare with those so engaged fifty years ago? Why?
4. Find the prices of coal and building materials ten years ago and compare them with present prices. What has caused the change? What do you think prices will be ten years from now?
5. What has been done by your state in the line of conservation of its natural resources? How may an individual aid in conservation of resources?
6. How may organizations such as the Boy Scouts and the Girl Scouts render services to the community in protecting forests?
7. What advantage to a community are the song-birds? How may birds be attracted to a community? What are the chief enemies of birds? How may birds be protected from their enemies?

CHAPTER XI

THE PRINCIPAL INDUSTRIES OF THE UNITED STATES—STOCK-RAISING AND AGRICULTURE

Stock-Raising.—Every animal, except the turkey, now domesticated, had reached that condition in unknown antiquity. The same instinct that leads a boy to take home a wild rabbit and try to tame it operated in ancient times. Wild animals were at first probably tamed as companions rather than for economic purposes.

Ever since the beginning of recorded history domestic animals have been of economic service to man. Domestic animals have not only been valuable in furnishing materials for food and clothing, but they have furnished power for transportation and machinery. Horses are still the chief reliance of farmers for ploughing, harrowing, and other farm operations, though power supplied by internal-combustion engines will soon be doing a large part of farm work.

In the United States cattle and sheep raising, as the chief industry, has gradually moved westward as agriculture has claimed the land. Most of the cattle are now raised in states west of the Mississippi and on lands not well adapted to agriculture, though they are often fattened in the states of the "corn belt." The cattle ranges have diminished in the West and with the loss of the best feeding-grounds the price of cattle has steadily increased.

The raising of live stock is the principal industry in

the semi-arid districts of Colorado, Montana, Texas, and Wyoming. The United States leads all nations in extent and value of live stock.

Quite distinct from the cattle-raising industry is the dairying industry. It flourishes in most parts of the United States, especially in the "corn belt," though New York leads all states in the quantity and value of dairy products. Easy and rapid transportation to city markets is a most important consideration in reference to milk, the greatest dairy product.

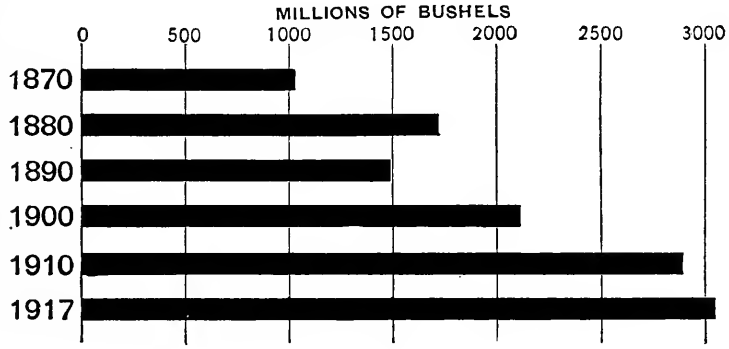
Agriculture.—An advance of vast importance was made when men first undertook to raise cereals and plants. Not only was the supply largely increased, but better varieties were produced by removing competition of other plants, preparing the soil, and by saving the best of the crop for seed. A larger population became possible and the institution of private property in land arose.

Agriculture, until comparatively recent times, was merely scratching the surface of the ground and cultivation was of the crudest kind. By experience it was learned that certain soils were better than others, and that the same crops could not be grown year after year upon the same piece of ground, and rotation of crops was introduced as well as fertilization of the soil.

Agriculture is now and always has been the most important single industry in the United States, both in the value of products and the number of persons employed. Indian corn, or maize, was extensively grown by the early settlers. It required little cultivation and would grow well upon new soil. Maize has always been the greatest of our cereal crops, and is now grown in every state of the Union, but most extensively in the "corn belt," comprising

Illinois, Iowa, Kansas, Missouri, and parts of Indiana and Nebraska.

Corn is chiefly used as a food for live stock, though increasing quantities are being used for human consumption in the form of corn-meal, corn syrups, and salad-oils.



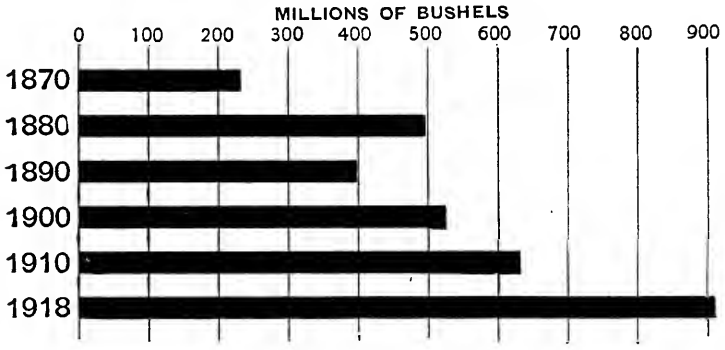
CORN PRODUCTION OF THE UNITED STATES

The following table, compiled from the Reports of the Department of Agriculture, gives some idea of the size and value of the corn production of our country.

Year	Area	Production	Farm Value December 1	Farm Value per Bushel	Yield per Acre
	Acres	Bushels	Dollars	Cents	Bushels
1900....	83,320,872	2,105,102,516	751,229,034	35.7	25.3
1905....	94,011,869	2,707,993,540	1,116,696,738	41.2	28.8
1910....	104,035,000	2,886,260,000	1,384,817,000	43.0	27.7
1915....	106,197,000	2,994,793,000	1,722,680,000	57.5	28.2
1916....	105,296,000	2,566,927,000	2,280,729,000	88.9	24.4
1917....	116,739,000	3,065,233,000	3,920,228,000	127.9	26.3
1918....	107,494,000	2,582,814,000	3,528,313,000	136.0	24.0

Though not equal in quantity or value to the corn crop, wheat is the next most important cereal crop of the United States. Wheat is grown in every state, but the great

wheat states are Minnesota, the Dakotas, Kansas, and Nebraska. Unlike corn, of which we export comparatively small quantities, wheat is one of the large export crops of the United States. In the year 1913, there was exported from the United States 19.57 per cent of the domestic crop.



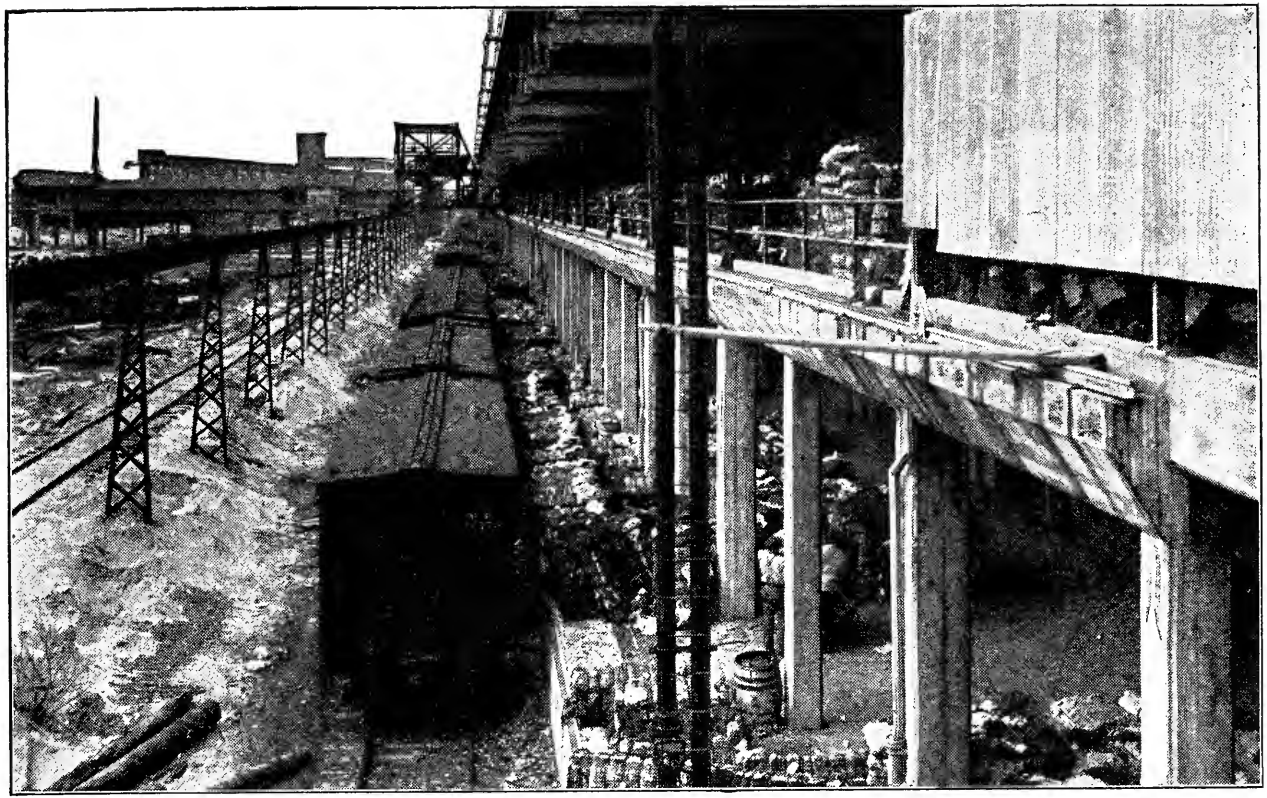
WHEAT PRODUCTION OF THE UNITED STATES

During the Great War the percentage of wheat exported reached abnormal figures, being 37.31 per cent in 1915; 23.70 per cent in 1916; 31.99 per cent in 1917.

WHEAT PRODUCTION AND VALUE

Compiled from Reports of the Department of Agriculture

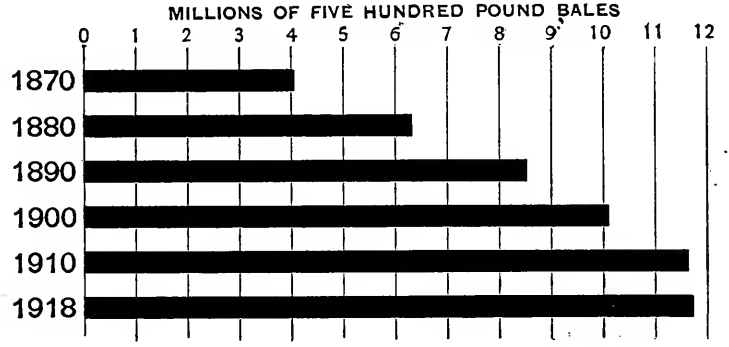
Year	Area	Production	Farm Value December 1	Farm Value per Bushel	Yield per Acre
	Acres	Bushels	Dollars	Cents	Bushels
1900....	42,495,385	522,229,505	323,515,177	61.9	12.3
1905....	47,854,079	692,979,489	518,372,727	74.8	14.5
1910....	45,681,000	635,121,000	561,051,000	88.3	13.9
1915....	60,469,000	1,025,801,000	942,303,000	91.9	17.0
1916....	52,316,000	636,318,000	1,019,968,000	160.3	12.2
1917....	45,089,000	636,655,000	1,278,112,000	200.8	14.1
1918....	59,110,000	917,100,000	1,874,623,000	204.4	15.5



UNLOADING COTTON AT THE NEW FIREPROOF COTTON DOCKS IN NEW ORLEANS

Hay is the largest single crop produced in the United States. The total amount of hay and forage crops cannot be given, as large quantities are consumed by cattle in pastures, but the crop of 1918, after pasturage had been finished was 75,459,000 short tons, valued at $1,522,473,000.

The great staple, cotton, was grown in the South before the Revolutionary War, but the invention of the cotton-



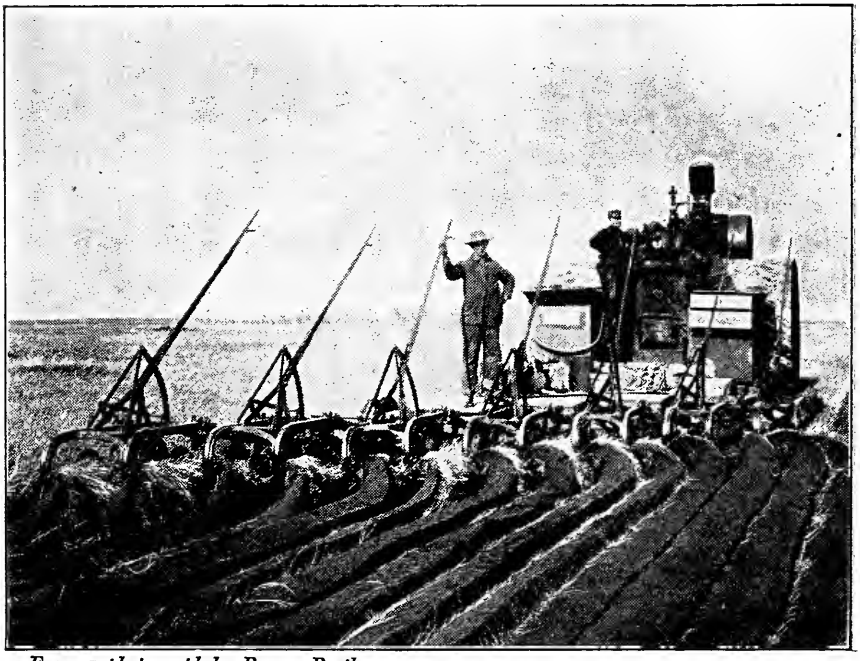
COTTON PRODUCTION OF THE UNITED STATES

gin in 1792 by Eli Whitney caused cotton to become the most important crop of the southern tier of states. Before Whitney's invention seeds were removed from the cotton by hand or by a roller-mill. A slave could clean five pounds per day by hand, or sixty-five by the mill. The cotton-gin enabled a slave to clean 300 pounds per day and with improvement in the gin the amount was soon increased.

At first most of the cotton was exported to England, but with the growth of the textile factories in New England, and later in the South, the domestic consumption of cotton increased and in 1918 only 40.58 per cent of the cotton

From a photograph by Publishers Photo Service

HARVESTING



From a photograph by Brown Brothers

PLOUGHING BY A GANG-PLOUGH PULLED BY A TRACTOR

Machinery in use on a Western farm

crop was exported. The production of cotton for the year ending July 31, 1918, was 11,302,000 bales of 500 pounds each. Chiefly on account of conditions brought about by the war, the value of the crop of 1918 was more than twice the average value for recent years.

Tobacco has been an important crop in many sections of the country since its early settlement, but unlike cotton, tobacco may be grown in the North, and Connecticut and Wisconsin are among the states producing considerable quantities of tobacco. Kentucky produced 427,500,000 pounds out of a total crop for 1918 of 1,340,019,000 pounds. North Carolina and Virginia are next in tobacco production. Tobacco is most exhausting to the soil and heavy fertilization or resort to new lands is necessary for its successful growth.

Sugar-cane has been grown in several southern states, but only in Louisiana has it become of any great importance. From Louisiana cane there were produced in the year ending March, 1919, 546,862,400 pounds of sugar. The States of California, Colorado, Idaho, Michigan, Ohio, and Utah produced most of the sugar-beets, from which, in the year ending March 31, 1919, 1,510,128,000 pounds of sugar were made. In the year ending June 30, 1918, Porto Rico sent 672,937,334 pounds of sugar to the United States, and Hawaii sent 1,080,908,797 pounds.

Americans are among the greatest of sugar consumers, averaging about 80 pounds a year per capita; 51 per cent of the sugar consumed in 1918 was imported from foreign countries.

Intensive and Extensive Cultivation.—Where land is expensive as compared to labor and fertilizers, it pays to

invest a large amount per acre in labor and fertilizers. This is known as intensive agriculture. In Europe intensive agriculture is the rule. The market gardens near the large American cities also are examples of intensive agriculture. In America there is a larger use of machinery than in Europe, because labor here is expensive as compared with machinery.

Where land is cheap and labor and fertilizers are expensive, it pays better to spread an investment of capital and labor over a large area of land; this is extensive agriculture.

Whether extensive or intensive agriculture is employed depends wholly upon the comparative expense of land, labor, and capital. Though the wheat lands of the Red River Valley of North Dakota are not surpassed in fertility by any wheat lands in the world, a small amount of labor and capital is expended per acre and as a result land much inferior in Europe yields a larger crop per acre than the Dakota lands. However, the cost per bushel is less in North Dakota than in any European country.

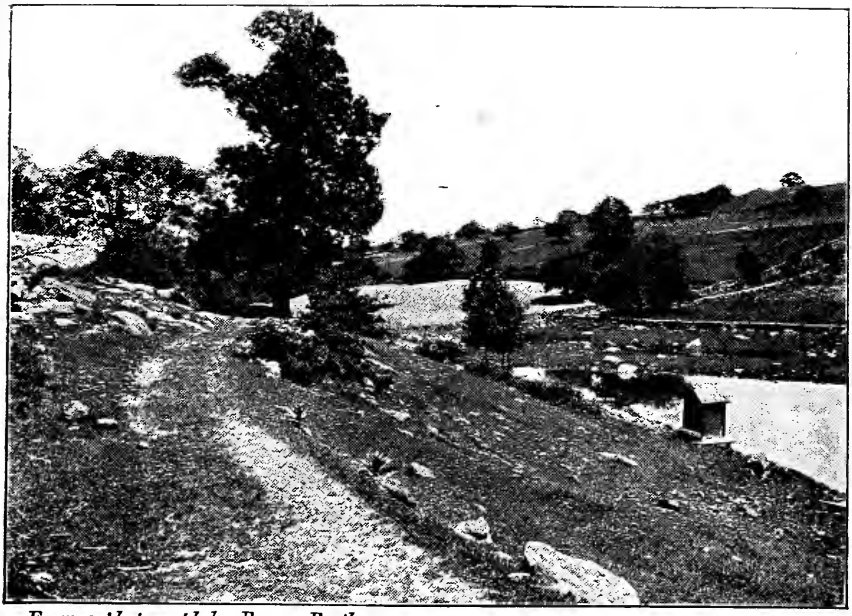
The Law of Diminishing Returns in Agriculture.—With additional investments of labor and capital *upon a given area of land,* the point will be reached when returns will not be proportionate with the increased investments. For a time there will be increased returns, until the point of maximum return is reached and then returns diminish in proportion to the investment, and it pays better to take up another piece of land than to cultivate more extensively the old. The following example in the production of potatoes illustrates the law of diminishing returns.

Units of Investment of Labor and Capital per Acre	Returns per Acre		Return per unit of Labor and Capital
1		75 bushels	75
2	Increasing returns	180 "	90
3		325 "	108.33
4		450 "	112.5
5	Diminishing returns	525 "	105
6		600 "	100

Knowledge of scientific agriculture makes it possible to raise increased crops on a given area of land, but, as every farmer knows, the point comes when additional investment per acre does not pay.

The law of diminishing returns may also be proved by showing the absurdity of the contrary. For, if the law of diminishing returns were not true, enough potatoes to feed the whole world could be produced from a single acre of land by simply increasing the expenditure of labor and capital.

The Marginal Product of Labor and Capital.—In agriculture, as in all production of wealth, the farmer has the option of combining labor and capital as he thinks most advantageous. If labor is expensive, he will try to substitute machinery for part of the labor. The point which he must consider is whether additional labor earns its wages and whether additional machinery pays interest on the investment and provides for its renewal when worn out. If able, the farmer will continue to employ additional labor, until the point is reached when the laborer only produces enough to pay his wages. The laborer who just produces enough to pay his wages is called "the marginal laborer"; he is not necessarily the last laborer employed, but any laborer when the investment of labor, land, and capital has reached a certain point.



From a photograph by Brown Brothers

From a photograph by Publishers Photo Service

FARM LANDS IN NEW ENGLAND AND MONTANA

In New England the machinery used on a Western farm could not be employed. Do you wonder that wheat is produced cheaper in the West?

In the same way he will invest capital, if he can, until the point is reached when it just returns enough to make it pay; this point is that of the "marginal productivity" of capital.

Scientific Agriculture.—No business requires greater knowledge than that of farming. A farmer, in order to make the most of his calling, must be something of a mechanic; must know much concerning the care of animals; must have some knowledge of such matters as the chemistry of the soil, fertilizers and their uses, rotation of crops, modes of fighting insects, fungus, and other pests; must be able to keep accounts and to attend to buying and marketing.

Scientific agriculture is that method of agriculture that enables the farmer to make the best use of his opportunities. The teaching of agriculture in schools and colleges and the published reports of the United States Department of Agriculture and state experiment stations, have done much to raise the standard of agriculture in the United States.

Urban and Country Population.—The table on next page shows the increase in the urban population of the United States since 1790, the year of the first census.

Decline in Rural Population.—The relative decline in the rural population is partly explained by the fact that every labor-saving device suitable to agriculture diminishes the amount of labor necessary on the farm and increases the demand for labor in the city factories. Likewise all improvements in transportation tend to hurt business in the small villages by making it easy to get supplies from the cities.

Census Years	Total Population	Urban Population*	Number of Places	Per cent of Urban of Total Population
1920	105,683,108	54,816,209	....	51.9
1910	91,972,266	42,623,383	2,405	46.3
1900	75,994,575	30,797,185	1,894	40.5
1890	62,622,250	18,272,503	447	29.2
1880	50,155,783	11,318,547	286	22.6
1870	38,558,371	8,071,875	226	20.9
1860	31,443,321	5,072,256	141	16.1
1850	23,191,876	2,897,586	85	12.5
1840	17,069,453	1,453,994	44	8.5
1830	12,866,020	864,509	26	6.7
1820	9,638,453	475,135	13	4.9
1810	7,239,881	356,920	11	4.9
1800	5,308,483	210,873	6	4.0
1790	3,929,214	131,472	6	3.4

* Population of places of 8,000 inhabitants or more at each census, except for 1920, 1910, and 1900, in which cases all places over 2,500 are included.

During the Great War the opportunities for employment at high wages in the cities drained the country of much of its agricultural labor. It is true that the lure of the city attracted many, but the economic argument doubtless had the most influence. The end of the war saw a return of many agricultural laborers to the country, but the scarcity of labor continues to be one of the great difficulties of American farmers.

The eight-hour day is less common on farms than in factories. During harvest season twelve hours usually constitute a day's work and ten hours in the winter. But there are compensations. The employer and the employee usually work together and a better understanding exists between them than in factory work. The work is chiefly

out of doors and is not onerous for a man of good physical powers. It is probably true that ten or twelve hours in farm labor is not more exhausting than eight hours in a factory.

Size of Farms.—In the United States most farms are small. There are many large farms, but the average farm in 1910 was 138 acres, while in 1850 it was 202 acres. As intensive farming becomes more common, the size of the average farm may be expected to decline.

The United States census authorities regard a "farm" as all the land which is directly farmed by one person, either by his own labor alone or with the assistance of members of his household or hired employees. When a landholder has one or more tenants, renters, croppers, or managers, the land operated by each is considered a "farm." In 1900 the number of farms in the United States was 5,737,372. In 1910 the number had increased to 6,361,502, an increase of 10.9 per cent during the decade. By 1920 the number had reached 6,449,998, but the increase during the last decade was only 1.4 per cent.

Marketing of Farm Products.—The difference between the price of agricultural products at the farm and in the city retail markets has been a matter of comment for many years. As this chapter is being written, potatoes may be purchased from farmers in Suffolk County, Long Island, for $1.50 a bushel, while they are selling in Brooklyn, only sixty miles away, at $3.50 a bushel; the best green corn costs twenty-five cents a dozen at the farm in Suffolk County and sells at retail in Brooklyn at sixty cents. The usual method of marketing most farm products is to consign them to a commission merchant, who sells them

for the farmer on commission, or else the farmer takes them by truck to a wholesale market and sells directly to retail dealers.

The farmers have frequently complained that the commission men do not give them an honest price for their goods. Most commission men are honest and the farmer can be protected from the dishonest dealer. Laws providing for the licensing and regulating of commission business have been passed in many states and these provide for revoking of licenses in case of offenses such as the following: making charges for services not rendered; misrepresenting the condition of goods when received; misrepresenting prices or market conditions; failure to make prompt payments; or combining to corner the market. Where such laws are properly enforced, there is little cause to complain of the actions of commission merchants.

It is often claimed that the retail dealer is a profiteer. The differences between wholesale and retail prices of farm products are frequently great, but it must be remembered that farm products are perishable and the retail dealer is a risk-taker.

In some cities, like Baltimore, Washington, and Indianapolis, there are large retail markets maintained by the city in which stalls are rented to farmers and others at reasonable rates, and as a result direct contact is made between producer and consumer to the benefit of each.

Co-operative marketing by associations of farmers, like the California Fruit Growers and Shippers Association, which sells its products directly to dealers, has benefited the producer, but has not served to lower retail prices.

Summary.—Hunting has given place in the United States to stock-raising. Better animals can be grown when domesticated than are produced when they are wild. Cattle-raising, except for dairying, is now chiefly confined to the semi-arid districts of Colorado, Montana, Texas, Wyoming, and parts of neighboring states. Agriculture is still the leading industry of the United States. Our chief crops are corn, wheat, hay, cotton, and tobacco. Intensive farming is the investment of a large amount of capital and labor upon a certain area of land. Extensive agriculture is the spreading of investments of capital and labor over a large area. Intensive farming is the rule where land is expensive; extensive agriculture is the rule where land is cheap. In the truck-gardens near our large cities there are large investments in fertilizers and labor; every foot of the soil is cultivated. It is too valuable to be left idle. In the wheat-fields of North Dakota there is small investment of capital and labor to the acre. No one complains if a person walks through a wheat-field, and the harvesters do not bother to cut every corner clean.

Farming in the United States is done chiefly by the men who own the farms. Though there are some great farms covering thousands of acres, like the Dalrymple Farm of North Dakota, most farms are less than 150 acres in size.

The most serious problem of the American farmer has been to secure labor. This is because farm laborers have been attracted to the city, partly by the belief that city life is more enjoyable and partly because of higher wages. It is doubtful whether city life has the expected advantages. The farm laborer has many advantages which the city does

not give and the purchasing power of a small money wage in the country may be as large as that of the higher money wage in the city. No business demands a greater exercise of the mental powers of a man than successful farming.

Farm products are generally sent to commission agents who sell them to wholesale or retail dealers. Farmers sometimes complain that commission agents do not deal fairly with them, but perhaps the farmers do not understand the problems of the commission merchants. Direct dealing between farmers and consumers of farm products may be maintained through the parcel-post or by city markets to which the farmer may bring his goods and sell them direct to the consumer.

TOPICS FOR DISCUSSION, DEBATE, AND SPECIAL REPORTS

1. Have you ever tried to domesticate a wild animal? With what success? What were the causes for your success or failure?
2. What are the chief agricultural products of your state? Have the agricultural products of your state changed in recent years? Whence comes the wheat used in your city?
3. Would you prefer to work in a factory or on a farm? Why? Have you had any experience in either kind of work? If so, how did you like it?
4. Do you think agricultural products cost too much in your city? How much of the price goes to the farmer? How much to the commission merchant? How much to the retailer?
5. A Michigan grower of peaches sent 500 baskets of peaches to Chicago. The farmer received one dollar a bushel for his peaches, but thought he should have received more because the best peaches were selling in Chicago at two dollars a

basket retail. Show that his complaint may not have been justified.

6. How are farm products marketed in your city? Show how marketing of farm products might be improved.

7. A New York citizen drove his automobile to Suffolk County, Long Island, and brought home a load of peaches for which he paid $1.25 a basket. The trip consumed a whole day and cost him ten gallons of gasoline and a quart of oil, to say nothing of the wear and tear on his car. He found that peaches of the same quality were selling in New York at $2.75 a basket. Did he save anything by his journey if he brought home ten bushels? Was the difference in price on the farm and at the retail market too great? What were the expenses from the farm to the city purchaser?

CHAPTER XII

MANUFACTURING

The Industrial Revolution.—In the latter part of the eighteenth century, a series of epoch-making inventions brought about the Industrial Revolution.

The more important of these inventions affected the manufacture of cloth. Cotton goods had been made by the weavers in their homes. The yarns were carded and spun by hand, usually by the wife and unmarried daughters. Spinning was so much the ordinary occupation of an unmarried daughter that the word spinster designated an unmarried daughter.

The story goes that as a poor weaver, James Hargreaves by name, entered his house one day, his wife accidentally dropped her spindle. The spindle, in an upright position, continued to revolve with the thread still spinning in the wife's hand. To Hargreaves the idea was suggested of connecting a number of spindles with one wheel. The machine which Hargreaves completed was named in honor of his wife, a Spinning-Jenny. The spinning-jenny soon came into general use, though not without protest from many people who thought that by its use they would be thrown out of work.

The yarn spun by the jenny was not suitable to be used as warp, which is the name given to the threads which run the long way of the fabric. Hence woolen and linen threads had to be used. Richard Arkwright in 1771 in-

vented a process of passing the thread over two pairs of rollers, one revolving much faster than the other. His invention received the name of water-frame, from the fact that the mill in which it was first used was run by water-power. In the years from 1774–79 Samuel Crompton produced a machine which combined the inventions of Arkwright and Hargreaves. This machine was called a mule, because of "its nature" we are told.

The invention of the steam-engine by James Watt in 1769 gave the power necessary to run machinery better than the water and horse power which had previously been used. These inventions first were applied to the manufacture of cotton, but later affected all textile industries. The use of machinery in the textile industries was followed by its introduction in other lines of manufacture.

The Factory System.—With the use of expensive machinery and steam-power, industries were transferred from homes and from small shops to large factories. This brought about the separation between laborers and capitalists and the general use of the wages system. The word "manufacturer" in Adam Smith's *Wealth of Nations*, referred to a man who made things with his hands (*manus* and *facio*), or, as we would say, a laborer. "Manufacturer," after the industrial revolution, received its modern meaning. The immense increase in production of goods brought about competition in a larger market. There were no laws regulating hours or conditions of labor, as the current thought and practice favored a *laissez-faire*, or let-alone policy. According to this theory everything, if let alone, would adjust itself properly. If one employer of labor was unfair, it was supposed that laborers would

desert him. Hence he would discover that unfairness did not pay. If a man cheated, his deception would be found out and he would be shunned by other men.

Slowly England learned the fallacy of a *laissez-faire* policy and successive acts were passed to protect labor against excessive hours, unsanitary conditions, accidents, and other defects of the factory system.

The Extension of the Factory System to America.—Parliament desiring to secure for England the benefit of the great inventions prohibited the export of any machinery, tools, plans, or models under severe penalties. Americans were able, however, to introduce the spinning-jenny into this country in 1775.

The first complete cotton factory was operated in 1789 by Samuel Slater at Pawtucket, Rhode Island. Although Slater, called by Jackson "the father of American manufacturers," could not import any machinery or plans from England, he was able to reproduce from memory the most important machinery. The War of 1812 helped manufacturing in the United States, as the people had to make the things they wanted or go without them. After the war was over, manufacturing lagged in the United States and the factory system was not fully established until 1840. Albert Gallatin attributed the slow growth of manufactures in the United States to (1) the greater profit to be obtained from agriculture, (2) the abundance of land, (3) the scarcity of capital, (4) the high price of labor.

The Factory System Still Being Extended.—The substitution of factory-made goods for those of home production has continued to the present time. Not long ago canned fruits and vegetables were prepared at home;

now they are chiefly factory products. The same may be said of bread, cakes, and pies. Clothing for men and women is now chiefly factory made, but men who are still young can remember when these articles were the products of home labor.

Tendency toward Production on a Large Scale.—There are several reasons to-day for large factories. Industries such as the making of pianos, automobiles, watches, and shoes, the slaughtering of animals for food, and the packing of meat, show a tendency for the large factories to become larger and the small factories to disappear. This does not necessarily mean monopoly, as the large factories still compete with one another. Some of the advantages of production on a large scale are the following:

1. Greater economy in the use of capital. Machinery in a large factory may be kept busy all the time, while in a small factory the output is not large enough fully to employ the specialized machinery all the time.

2. There may be a greater division of labor, particularly among the more specialized lines of labor. A large plant can hire a skilful chemist, engineer, or superintendent.

3. There can be economy in the purchase of raw materials in large quantities and at regular intervals.

4. In the making of by-products a large factory can use much of what a small factory would waste. The great packing-houses produce many by-products such as fertilizers, glue, ammonia, leather, and pepsin.

5. A large establishment may secure its source of raw material, may have its own steamships and wharfs, may make its own barrels or other containers, and have its own storage plants.

Advantages of the Small Producer.—However, the advantages are not all with the large producer. The following are some of the advantages of the producer on a small scale:

1. The proprietor who manages his own establishment has an inducement to economy and hard work, which the hired manager does not have. Against competition of powerful establishments, many small plants operated by their proprietors flourish.

2. In some industries the greatest efficiency of plant may be obtained in a small factory. Any further increase in size is mere duplication.

3. Electric power may be had by the small producer. This tends to overcome the advantage of generating power on a large scale by the larger plant.

4. Waste materials may be sold to those who specialize in their use, thus overcoming the advantage which the large producer has in making by-products.

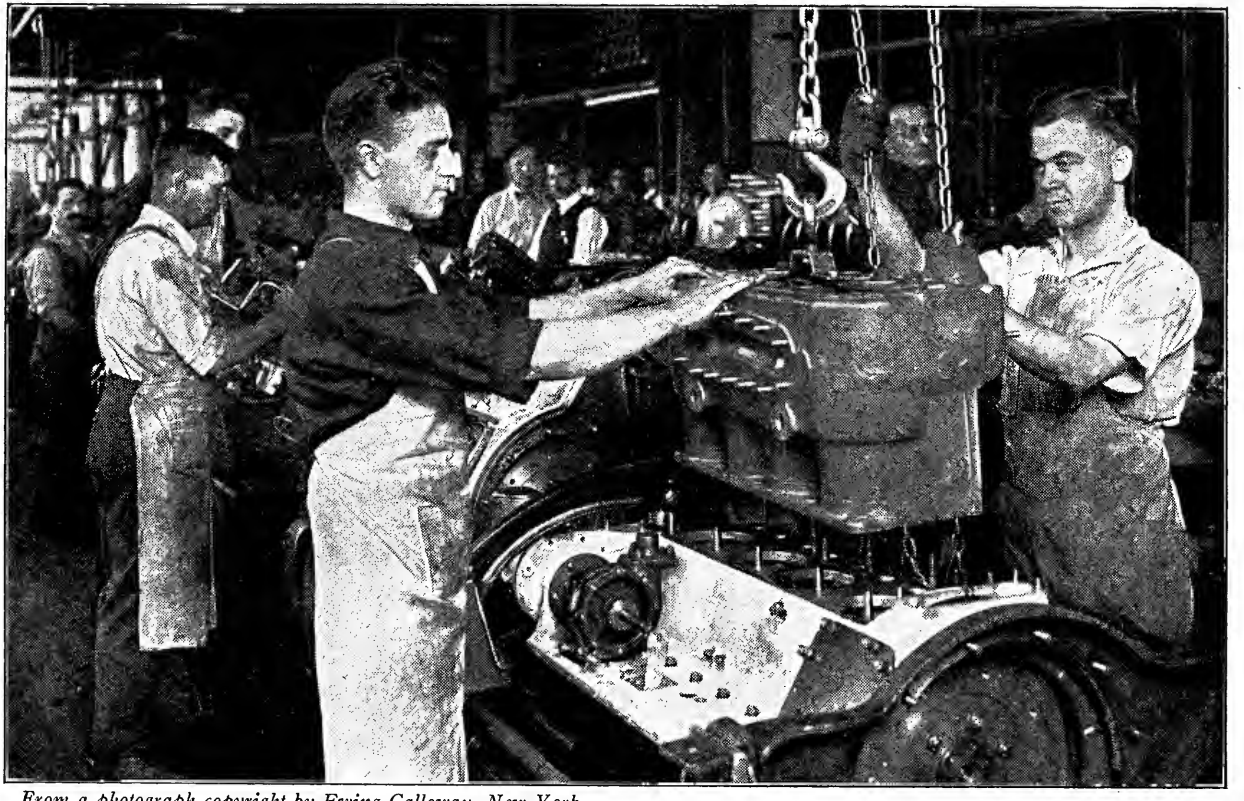
Machinery and Labor.—On looking at a piece of machinery which will enable one man to do the work formerly done by ten men, the observer may jump at the conclusion that nine men have lost their jobs. This is far from the truth. The immediate effect of labor-saving machinery is to replace labor by machinery, but the ultimate effect upon labor is different. The lowering of the cost of production results in lower prices and an increased demand, which is generally followed by a larger number of men being employed in the industry, not to speak of the men employed in making the machines. For example: The introduction of type-setting machines was resisted by the men employed in the printing trade. At first a large number of men were

thrown out of employment, but newspapers and books were so reduced in price that an increased demand led to an increased amount of work. Now many thousands of men are employed in the printing trades whose labor would not be in demand were it not for the type-setting machines. Likewise, the locomotive displaced the stage-driver, but the railroads have vastly increased the demand for transportation and have therefore increased the demand for labor.

The fallacy which has just been explained is sometimes called the "lump of labor fallacy." It assumes that there is, at any time, a certain amount of work to be done and that, if labor-saving machinery is introduced, a certain number of laborers will lose their jobs. The fact is that there is an indefinite amount of work to be done and whether or not the work is done depends upon cost and demand for the product.

Without doubt the conditions of labor have improved through labor-saving devices. An engineer, operating a locomotive, has an employment more remunerative and more pleasant than the stage-driver and one that employs his intellect to a larger degree. The man who operates a lathe, or almost any other machine, has a better job than the hand laborer who formerly worked in a similar industry.

The Law of Diminishing Returns in Manufacturing.— We have previously explained the law of diminishing returns in agriculture. It was once thought that the law of diminishing returns did not apply to manufacturing. This is a mistake. It must not be forgotten that the law of diminishing returns does not refer to industry as a whole *but on a given area of land.* The amount of labor and



From a photograph copyright by Ewing Galloway, New York

PUTTING THE CYLINDER-BLOCK ON THE CRANK-CASE OF A THREE-TON TRUCK IN A DETROIT AUTOMOBILE FACTORY

All parts are standardized, so that replacement of worn parts is easy

capital which may be employed on an acre of land in manufacturing is very great as compared with that which can be employed in agriculture and the point of diminishing returns is, therefore, reached more slowly in manufacturing. But the point of diminishing returns comes in manufacturing. It does not pay to build factories beyond a certain height nor to crowd them with machinery beyond a certain degree. When the maximum employment of capital and labor consistent with economy of production has been reached on a given area of land, it becomes desirable and necessary to buy new land and put up new buildings, rather than enlarge old buildings or crowd them more.

In mining the expense increases rapidly with the increased depth of the mine. The higher an elevator is run, the more rapidly the expense of instalment and operation increases. The last knot that is obtained from a fast steamboat costs more than any other knot. The law of diminishing returns has a universal application, but the point of diminishing returns is reached sooner in some industries than in others.

Summary.—The industrial revolution gave rise to the factory system. The policy of *laissez-faire*, or non-interference, was at first followed in England, but was abandoned in the first half of the nineteenth century. The factory system was introduced into America before the close of the eighteenth century, but was not fully established until about 1840. The substitution of factory-made goods for goods of home production has not ceased. There are several reasons why to-day there are large factories. Among these are: (1) Greater economy in the use of capital, (2) a greater division of labor, (3) economy in the

making of by-products, (4) the large factory may control the source of its raw material and other supplies. However, the advantages are not all in favor of the large producers. A small factory may have the following advantages: (1) Personal interest of the proprietor, (2) in many industries as great an efficiency of plant as the large producer, (3) electric power tends to aid the small producer, (4) waste material may be sold to those who specialize in its use. Machinery has been a benefit to laborers and to the whole population. The law of diminishing returns applies to manufacturing, but a much larger investment on a given area of land may be made than in agriculture.

TOPICS FOR DISCUSSION, DEBATE, AND SPECIAL REPORTS

1. Show the immediate effects of the industrial revolution in England. References: Beard, *The Industrial Revolution;* Toynbee, *The Industrial Revolution;* Ely, *Outlines of Economics*, pp. 51–56; Shapiro, *Modern and Contemporary Europe*, pp. 49–52.
2. Give an account of the rise of the factory system in America. References: Coman, *Industrial History of the United States*, pp. 180–193; Bogart, *Economic History of the United States*, chap. XI; Taussig, *Tariff History of the United States*, pp. 17–67.
3. What factory-made articles used in your own home were home-made a few years ago? What electric appliances are now used in homes?
4. What small factories are there in your community? How long have they been in existence? What advantages do they possess?
5. Visit some factory and make a report on use of machinery in the factory.

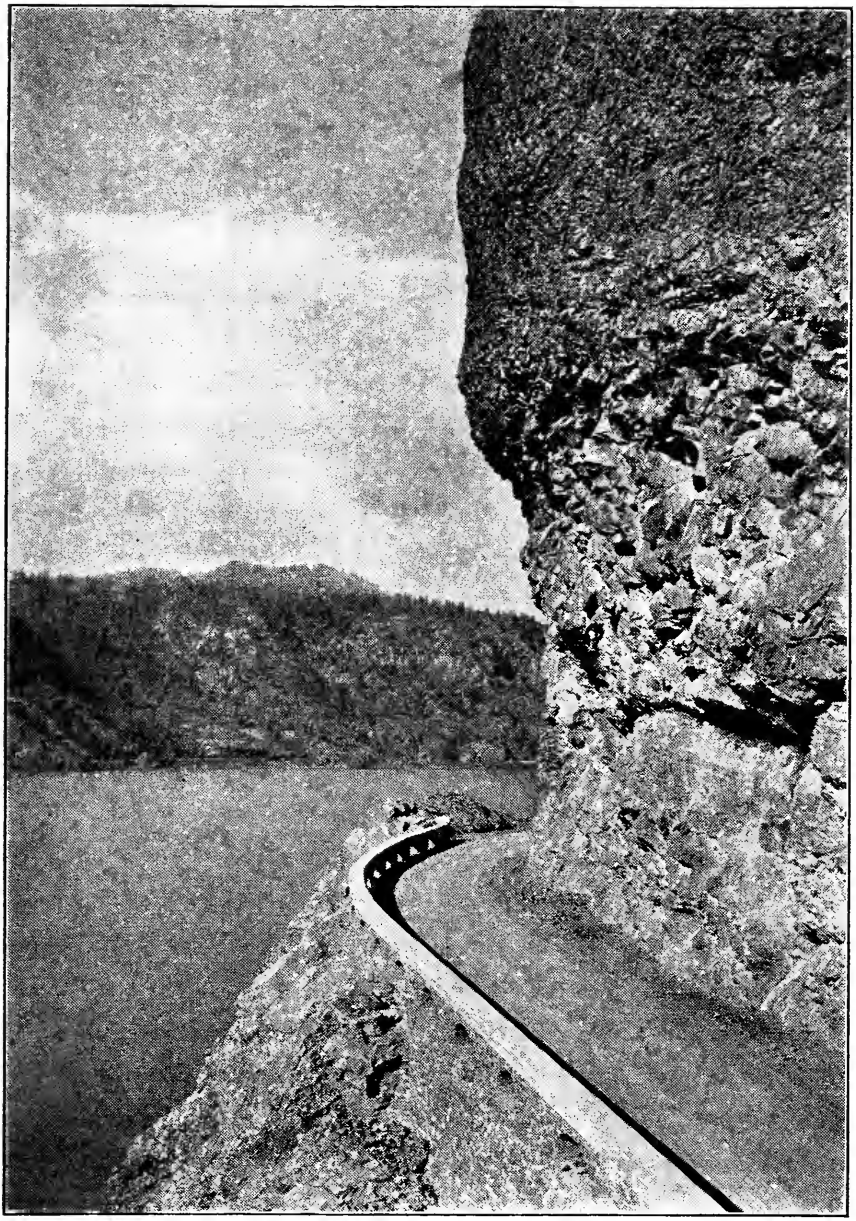
CHAPTER XIII

TRANSPORTATION

In the United States we have seen three stages in the development of transportation: (1) The turnpike; (2) canal and river; (3) railroad.

The Turnpike Period.—In colonial times roads were few and local. The first long-distance roads were constructed during the last decade of the eighteenth century. These long-distance roads were built by private companies, usually aided by public funds, and tolls were charged for their use. They were called turnpikes, from the bar that closed the road and was turned to let a wagon pass after the toll had been paid. The cost of transportation by turnpike was very high. It cost about 33 per cent of the value to send goods from Philadelphia to Kentucky. The average expense for transportation of goods by turnpike was ten dollars a ton for every 100 miles. In his famous report of 1807, Gallatin recommended that the Federal Government build roads and canals. Considerable money was thus expended by the government, notwithstanding objections raised to this use of Federal funds on account of its alleged unconstitutionality. State governments also aided in road construction and the principal cities of the United States were connected by roads as early as 1840.

The Revival of Long-Distance Roads.—After railroads were built, wagon-roads were used only for short-distance hauls and state and national aid ceased. To-day there is



From a photograph by Ewing Galloway

MITCHELL POINT ON THE COLUMBIA RIVER HIGHWAY

The Columbia River Highway here runs under a sheer cliff. A fine example of a modern long-distance road

a new interest in long-distance roads on account of the automobile. All the states and the Federal authorities are now giving attention to road-building. Good roads bring pleasure to thousands and result in better prices for the farmers and lower prices and better service for city consumers of farm products.

Canal-Building.—While the building of turnpikes was under way, another method of transportation was receiving attention. Canals cost more to build, but when once built goods can be sent by canal much cheaper than by road. A mule can draw more goods loaded in a canal-boat than twenty horses can haul in a wagon. The people of the United States knew the advantages of canals over roads and gave their attention to the construction of canals as soon as their resources permitted. Though several canals had been constructed before the Erie Canal, this was the first great success in canal-building. It connected the Hudson River with Lake Erie and was completed in 1825. Its success was immediate. Freight rates were lowered, time of transit was shortened, and new districts were opened to trade. In addition to this it was profitable to its builder, the State of New York, and paid for itself in ten years. The Erie Canal continued to produce a revenue for the State of New York until the competition of railroads took away most of its patronage. It is still in operation, having recently been converted into a barge canal. Though the Erie Canal now produces no revenue it still has an influence in keeping down the cost of transportation in New York State, and would prove invaluable if for any cause transportation by rail were interrupted.

Other states followed New York. Pennsylvania completed an extensive canal system in 1834. The Ohio Canal, built by the State of Ohio, connected Lake Erie and the Ohio River. Massachusetts, New Jersey, and Virginia were among the states that led in canal-building. The states built canals directly by appropriating money and loaned their credit to private canal companies.

The immediate result was favorable to all sections of the country. The farmers in the West were able to send their goods to Eastern markets and receive better prices than had prevailed in their local markets. They also purchased farm machinery for less than they had formerly paid. The cities of the Eastern states also profited by lower prices for flour and an enlarged market for their manufactured goods.

Most of the canals were not successful financially, owing to the competition of railroads. When the railroads made the canals unprofitable most canals were sold to railroad companies or abandoned.

Railroads.—Railroads have become the chief means of transporting goods over long distances in the United States. No country in the world has so many miles of railroads as America. It is difficult to believe that the grandfathers of many men still active in business never saw a railroad.

The Baltimore and Ohio Railroad, the pioneer in America, opened a few miles of road in 1830. Horse-power and sails were tried as motive power, but after a year and a half of experience with these, steam-power was adopted. The first locomotives were imported from England, but proved unsuited to American rails and road-beds, and

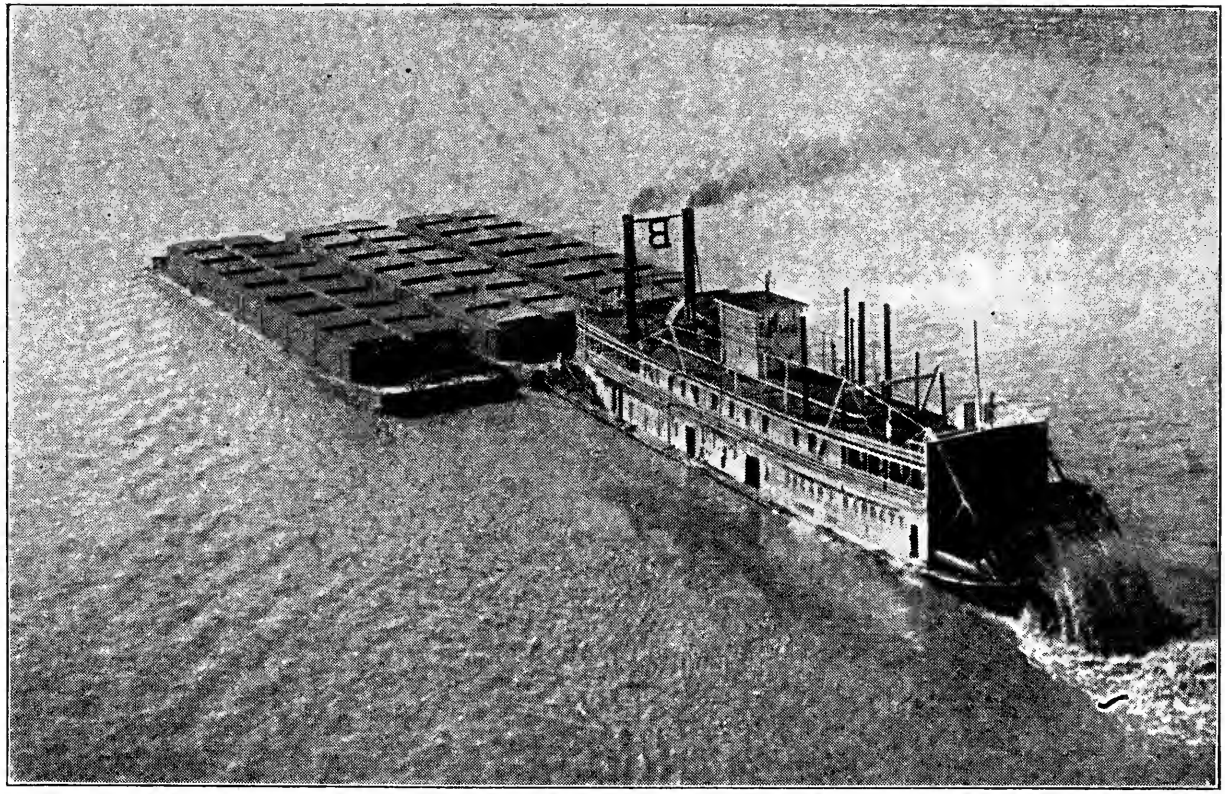
American engineers soon designed engines better suited to American conditions.

Railroad-building proceeded rapidly after 1840. Soon every Eastern city of much importance had railroad connection with other cities, and by 1850 railroads had penetrated west of the Allegheny Mountains. The railroads in 1850 were local roads. Frequent changes of cars were necessary in order to travel long distances.

The decade from 1850 to 1860 was characterized by great activity in railroad-building. By the end of this decade there were 28,919 miles of railroad in operation. Local lines were beginning to be linked together. For example, several local lines between Albany and Buffalo were united to form the New York Central Railroad. This resulted in greater economy of operation and greater convenience to travellers.

The Civil War brought a stop to railroad construction. After the war railroad construction was revived and soon the states east of the Mississippi had a network of railroads connecting all important cities. Railroads to the Pacific coast were planned while the Civil War was being waged. No private company was willing to begin the work without government aid and Congress voted to give large grants of land and to loan millions of dollars. The Union Pacific Railroad, extending from Omaha to Ogden, was granted 12,000,000 acres of public land. The Central Pacific, reaching from Ogden to Sacramento, received 8,000,000 acres. Grants to other railroads brought the total land grants by the Federal Government to 159,000,000 acres before land grants were discontinued in 1871.

On May 10, 1869, the Union Pacific and the Central



From a photograph by Ewing Galloway

A TOW OF GRAIN-LADEN BARGES ON THE MISSISSIPPI RIVER

Now the railroads do not fight river transportation as they did in the old days. It is cheaper to send grain from St. Louis to New Orleans by barges than by train

Pacific Railroads were joined at Promontory Point near Ogden. It now was possible to travel by rail from New York to California.

Railroad Competition.—Soon after the Civil War most of the short railroads were linked together. Competition became intense between rival lines. The theory of the time was that competition should be encouraged. "Cut-throat competition" led to the weaker lines being forced to sell out to the stronger. The New York Legislature, like legislative bodies in other states, tried to prevent consolidation of rival lines by passing a law making such an act illegal. When the West Shore Railroad was beaten in a war of rates by the New York Central, it was leased to the latter railroad for a period of 999 years.

Where consolidation was not feasible "pooling" agreements were made. Under their terms business and profits were divided and the same rates charged by each line. Competition in rates ceased.

Railroad Abuses.—Under unrestricted private ownership a number of abuses developed. The most serious was discrimination in regard to persons and places. Favored shippers were given special advantages in assignment of cars and special rates. The regular rate was usually collected from a favored shipper and then a part returned to him. This was called a rebate. Passes were freely granted to favored persons and denied to others. Discrimination against places was no less common. The granting of lower rates to some places than were given to others was a great advantage to the favored communities.

Public Regulation of Railroads.—In 1887 was passed the Interstate Commerce Act. Its object was to compel the

railroads to treat all alike. All discrimination was prohibited. The Interstate Commerce Commission, created by the act, has had its power increased by supplementary legislation and now has fairly complete control over the railroads.

Most of the states have commissions of their own with control over commerce within the state. Sometimes the state commissions have acted contrary to sound economic policy and have hindered rather than helped the railroads.

Mr. Alfred P. Thorn, in an address* before the State Bar Association of Tennessee, showed some of the faults of the state commissions:

"Three states have passed laws making it illegal for a carrier having repair shops in the state to send any of its equipment, which it is possible to repair there, out of the state for repairs in another state; fifteen states have attempted to secure preferred treatment of their state traffic, either by heavy penalties for delays or by prescribing a minimum movement of fifty miles per day—one of these States imposing a fine of ten dollars per hour for the forbidden delay; twenty states have hours-of-service laws, varying from ten to sixteen hours; twenty states have full-crew laws; twenty-eight states have headlight laws, with varying requirements as to the character of the lights, and fourteen states have safety-appliance acts. Sixteen states have enacted statutes, each asserting for itself the individual right to control the issue of stocks and bonds of interstate carriers.

"It is manifest that if such issue is to be regulated by the individual state, every state is at the mercy of the

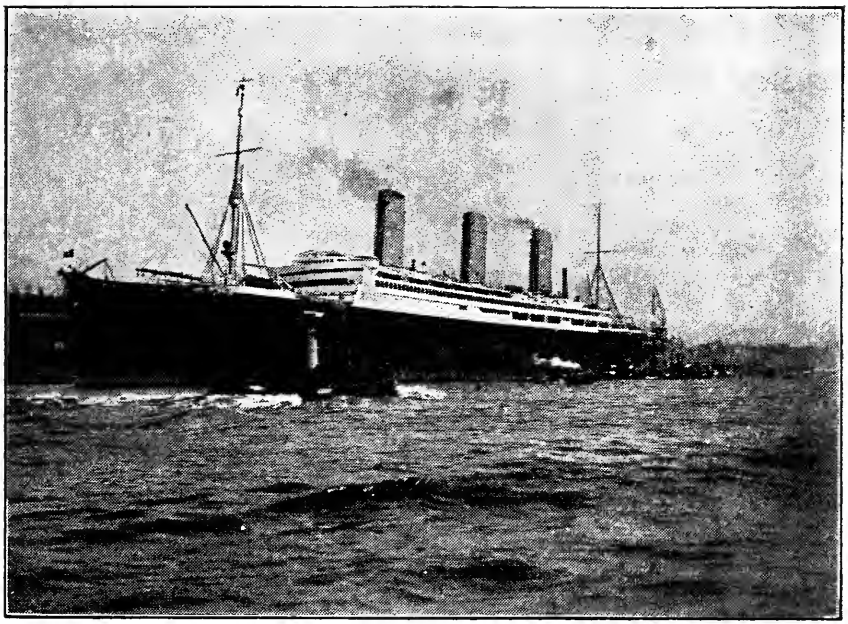
* Quoted by Kahn, *Business and Economics*, p. 81.

others. A bond to be available in the market, must, as a rule, be secured upon the whole railroad line; and this crosses many states. One of the states, therefore, if it possesses the power to regulate the issue of securities of an interstate carrier, may defeat a financial plan approved by all the other states, and necessary to the carrier's transportation efficiency."

It would seem to be clear that railroads doing an interstate business should be left to the jurisdiction of the Interstate Commerce Commission.

The Railroads and the Great War.—The war brought a great demand for railroad transportation. There were millions of soldiers to be transported and millions of tons of supplies to be taken to the ports of embarkation. The task was a heavy one for the railroads and the United States Government assumed control. Mr. McAdoo was made director-general of railroads. He treated the railroads of the country as a unit, and important savings and increased efficiency were secured. Unnecessary passenger trains were eliminated, and rates for passengers and freight were raised. It became necessary to increase the pay of railroad employees and this was done. Government operation was successful inasmuch as the required service was rendered, but it was not a financial success. The conditions were exceptional and probably private ownership would have been at least as unremunerative. The railroads were restored to their owners in September, 1920, with certain temporary government guarantees.

Water Transportation.—American shipping was important in colonial times. Successful shipyards were operated in all the colonies before the Revolutionary War. The



A MODERN OCEAN LINER, THE IMPERATOR

Courtesy of the New York Central Lines Magazine

THE TWENTIETH CENTURY LIMITED, ON THE NEW YORK CENTRAL RAILROAD

prevalence of war in Europe during the closing years of the eighteenth century and the opening years of the nineteenth century aided the American merchant marine. Not only did our merchant ships carry goods for Americans, but about one-half of the exports of the United States in 1801 was composed of foreign goods which were brought to the United States from South America and the West Indies for shipment to Europe. Shipments direct from South America to Europe were subject to capture, but the danger from British ships-of-war was averted by landing the goods in American ports and then reshipping them. Professor H. C. Adams says: "The growth of American shipping from 1789 to 1807 is without parallel in the history of the commercial world."

The American merchant marine suffered seriously as a result of the English Orders in Council of 1804 and 1807 which declared all ports in France or of her colonies and allies closed to neutral vessels unless they first entered a British port and paid duties to Great Britain. Napoleon responded by his Milan decree which declared that any ship obeying the English Orders in Council was subject to capture. The War of 1812 and the restoration of peace in Europe resulted in the loss of most of our carrying trade.

In 1840 the carrying trade of the United States began to revive. This was the day of the American clippers, which surpassed all ships of their time. In building wooden ships we had an advantage both in material and in skill of ship-builders. These clipper ships, so-called because of their sharp, overhanging prow, were especially designed for the trade with China. They went, however,

to every port. By the time of the Civil War, our shipping trade was about equal to that of England.

During the Civil War American shipping declined because of the ravages of Confederate cruisers. However, it is probable that our shipping would have declined if there had been no war. Changes were taking place which made our ships unable to compete with the ships of England.

These changes were the substitution of iron ships for wooden ships and of steam for sails. England led in the substitution, but America confidently clung to the old style. America saw her mistake too late. Our carrying trade was practically lost. In 1914 less than 10 per cent of our foreign trade was carried in American ships.

Shortly after the United States was forced to enter the World War by the hostile acts of Germany, it became evident that the war would be lost unless more ships were built to carry supplies to England and France, or unless the unlawful submarine policy of Germany could be defeated by destroying the submarines. The United States, in co-operation with our allies, was successful in both endeavors. By Act of Congress a Shipping Board was created with almost limitless resources. During the first year of its operations—August, 1917, to August, 1918—574 ships were launched, with a tonnage of 3,017,238. The activities of the Shipping Board were just reaching their height when the armistice was declared. The production of ships from September, 1919, to February, 1920, was at the rate of 4,250,000 tons a year. In June, 1920, the United States had a sea-going merchant marine of 12,406,123 tons, compared with 18,110,652 of England, exclusive of her colonies and dependencies.

The Merchant Marine Act of 1920.—Under the terms of the act of 1920, the ships built or building by the United States Shipping Board were transferred to a new shipping board. This Shipping Board is composed of seven commissioners appointed by the President with the consent of the Senate. The Shipping Board is authorized to sell all vessels which it does not want. Americans have the first option of purchase. The board may lay out ship routes and operate them, or it may sell or charter ships to American citizens for operation on these routes. The sum of $25,000,000 a year for five years may be used by the board, out of its revenues, as loans to American builders of steam vessels. These loans shall not exceed more than two-thirds the cost of the ships and shall be secured by liens on the ships.

Trade on the Great Lakes.—The navigation laws of the United States restrict the coastwise trade of the United States, the trade on American rivers, and upon the Great Lakes to American ships. The trade on the Great Lakes is of much importance. Grain, iron ore, and copper ore are the principal goods that are shipped East via the Great Lakes. Coal and heavy machinery and manufactured goods make up the bulk of west-bound shipments.

Summary.—In this chapter we have followed the development of transportation from colonial times to the present. The great obstacles to inland transportation were the dense forests and the numerous rivers. It was much easier to go from New York to Boston by sea than to go by land. In the days of sailing ships an ocean voyage was always uncertain and at times dangerous. Roads were much desired and were built by private companies as

soon as it was thought they would pay. Both Federal and state governments aided in road construction and the principal cities of the United States were connected by roads as early as 1840.

With the advent of railroads interest in long-distance wagon-roads declined, but has been revived in our own days by the coming of the automobile. Gradually toll roads were abolished by the states assuming ownership and now toll roads are very few.

The canal came into prominence early in the nineteenth century. Though canals are more expensive to build than roads, the cost of hauling a ton per mile on a canal is much less than by road. The building of canals was, in turn, halted by a better system of long-distance transportation.

Railroad-building commenced in the third decade of the last century, but did not reach large proportions until after 1840. From 1840 to the opening of the Civil War railroad construction was pushed with energy in the states east of the Mississippi River. The first lines were short ones, but before the end of this period local lines were being consolidated into through lines. After the Civil War, the transcontinental lines were constructed, the Federal Government helping with land grants and with loans.

Private ownership and operation of railroads was unrestricted until the passage of the Interstate Commerce Act in 1887. This act, as amended from time to time, is designed to compel the railroads to deal fairly with all their patrons.

The foreign commerce of the United States was carried in American ships until 1807. The American carrying trade suffered by the English Orders in Council, Napo-

leon's Milan decree, and the War of 1812. In 1840 it was revived again to decline during the Civil War. The Shipping Board built a vast merchant fleet during the World War and the American Merchant Marine Act of 1920 seeks to keep our merchant marine on the sea.

TOPICS FOR DISCUSSION, DEBATE, AND SPECIAL REPORTS

1. What long-distance roads pass through your city? Where do they go?
2. What canals are in your state? Have any canals in your state been abandoned? Why?
3. What are the principal railroads of your state? What are the principal goods they ship into your city? What do they take out of your city? What competition do the railroads of your city have to face?
4. Are there any automobile trucking companies which operate long-distance routes from your city? Where do they go? How do rates compare with the railroad rates? Would you prefer to ship household furniture by railroad or automobile from Indianapolis to Cleveland if the rates were the same? if it cost 25 per cent more to ship by an automobile truck? Why?
5. Do you think the Merchant Marine Act of 1920 was a measure in the interest of all Americans? Give reasons for your opinion.
6. Should subsidies be given to American ships in order to enable them to compete with English and German ships? Why can't they compete without subsidies? What advantages come to America through a large merchant marine?

CHAPTER XIV

MERCHANDISING

Trade Produces Utility.—The ancient Greeks and Romans did not look with favor upon trade. To build up a fortune by trade implied to them that cheating had been practised. Both parties to a trade may and ordinarily do profit. A man who has more automobiles than he needs may exchange one of them for a piece of land upon which to build a summer cottage, with a man who has a large amount of land and wants an automobile. Both parties to the transaction benefit. It makes no difference whether the transfer is made directly by barter or indirectly through the use of money and a middleman. It is clear that an article, in the possession of one who can use it, is worth more than in the possession of one who cannot use it. Therefore exchange creates a variety of utility which we may call "possession utility."

The advantages of trade are well illustrated by an experience of General Grant when he was President of the United States. Grant had purchased a horse from a butcher for the sum of $250. He was pleased with his bargain and, showing the horse to a senator, boasted that it had cost him only $250. The senator was not impressed with the bargain and remarked: "Well, I think I would rather have the $250 than the horse." The President replied: "That is just what the butcher thought."

Each party to the transfer was pleased. The President preferred the horse; the butcher preferred the $250. Every exchange, unless deception is employed, may be beneficial to both parties.

Importance of Merchandising.—The business of merchandising ranks as one of the most important in the United States. Every person is a merchant at one time or another. In the United States about 4,000,000 people make a living by trade. Only agriculture and manufacturing give employment to larger numbers.

Storage.—A merchant buys in large quantities and sells in small quantities. His business is to provide goods at the time and in the quantities needed. All merchants store goods, but the business of storage may be separated from merchandising, as it is by many warehousemen.

Though storage is an economic service, it may be a means of "cornering" the market. For example, a man may buy all the eggs for sale and place them in storage. He has "cornered" the market and may refuse to sell except at an exorbitant price. "Cornering" the market is a dangerous game. As prices rise goods will flow from other places and this tends to lower the market price. Probably more money has been lost than gained by attempts to "corner" a market.

If goods are stored in time of abundance and sold in time of scarcity, the market tends to be stabilized, since buying goods for storage when they are abundant creates additional demand, and selling them when they are scarce creates additional supply. The price of eggs in June, for example, would be lower were it not for the thousands of

cases of eggs that are put in storage during that month, and the price of eggs in January would be higher were it not for the eggs taken out of storage in January. If, however, a "corner" is created in storage eggs, famine prices may be charged for the part of the eggs taken out of storage and much of the supply of storage eggs be permitted to spoil or be sold for other than food purposes. This is uneconomic, but the speculator may be enriched by charging more for a part of the supply than he could get for the entire stock.

The High Cost of Selling.—Professor Gerstenberg * remarks that the cost of selling the world's goods is greater than the cost of producing them. For many goods this is certainly true. In recent years the cost of selling has been rising, because the public now demands more service. Delivery, fancy packages, charge accounts, return of goods, and telephone service cost money. This expense must be met by an increased price. Much of this cost might be lessened, if those who carry goods home were given a discount or those who pay cash received some benefit from such payments. The man who carries home his purchases and pays in cash is obliged to help support an expensive delivery system and must help meet the loss from bad accounts. "The consumer pays for the oil used in the engine, the ink used in printing the invoice, the bookkeeper's pen, the chairman's mahogany desk, the cost of cutting the grass in front of the office, the director's motor-car, the pages' buttons, the firm's subscriptions to charity, the very smoke that floats from the tall chimney; and, finally, the simple or elaborate tomb to mark the last

* *Principles of Business*, p. 414.

resting-place of the body of the man who possessed the requisite genius to make the dream a reality." *

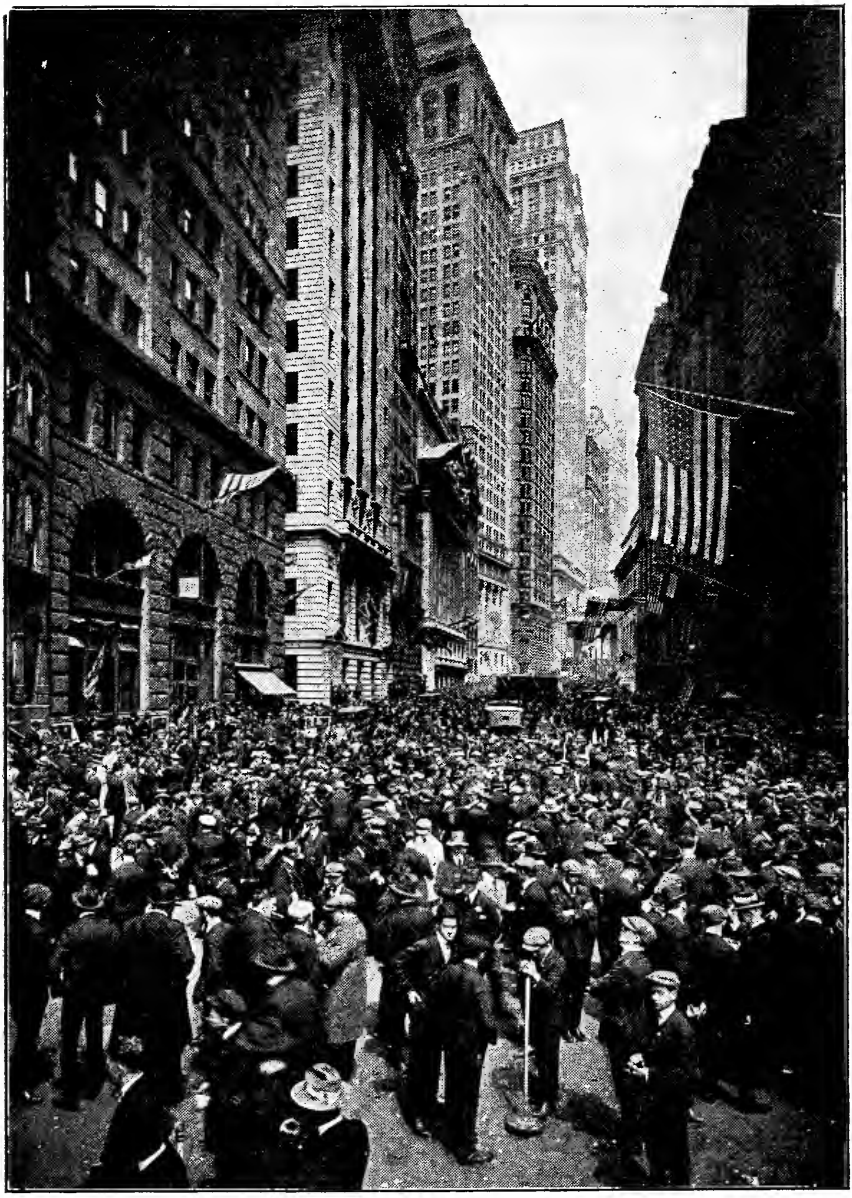
Salesmanship.—Many articles sell themselves. One goes to a grocery store and buys potatoes, apples, and flour, but even in such simple purchases some qualities of salesmanship help. Customers prefer to go to a grocery where the clerks are polite, clean, know the stock, and give honest weight.

The selling of many goods, such as stocks and bonds, requires expert knowledge and is almost a profession. Among the qualities of a good salesman must be knowledge of the stock and confidence in it—if he cannot have confidence he should resign—a pleasant manner and tidy appearance and some knowledge of psychology, which latter he may have without knowing the meaning of the word.

The art of selling books has largely passed with the practical disappearance of the old bookstore and its clerks who knew and loved books. The book department of the average department store is generally conducted without much knowledge of books. The man who asked for a copy of a book by John Stuart Mill and was handed *The Mill on the Floss*, did not have a unique experience. The automobile salesman, on the contrary, generally knows his business and conducts it upon scientific lines.

Advertising.—You may have wondered why a manufacturer or a dealer would pay $15,000 for one page in one issue of a weekly magazine. The answer is that it pays. Advertising is a part of the expense of merchandising, and the cost must be paid by the consumer. This does not

* Derrick, *How to Reduce Selling Costs.* Quoted by Gerstenberg, *Principles of Business*, p. 413.



THE "CURB" MARKET ON BROAD STREET, NEW YORK

Here stocks and bonds were marketed which were not listed on the Stock Exchange. On June 27, 1921, the New York Curb Market Association moved into its new building on Trinity Place.

mean that the large advertisers charge higher prices than those who advertise less extensively, for the large advertiser may do so extensive a business as to make the charge against a single article exceedingly small. Advertising renders an economic service in telling where goods may be obtained and in explaining the advantages of certain goods.

Some advertising is merely designed to cause purchasers to get goods from one dealer rather than from another or to cause them to buy one article rather than another. The following advertisement illustrates this:

USE BLANK'S DENTAL CREAM

Why Should You Use An Inferior Article
When You Can Get The Best?
It Costs No More Than The Imitations.

Other advertising creates a new demand. For example, a dental cream might be advertised as follows:

A CLEAN TOOTH NEVER DECAYS

Your Health, Appearance, And Pocketbook
Demand Good Teeth.
Use Blank's Dental Cream And Have Clean Teeth.

The advertising of electric washing-machines is conducted so as to create (1) a desire to possess a washing-machine, (2) a demand for the particular machine. It combines two ideas in one advertisement.

Most advertising is good, though some kinds are better

than others. Advertisements that disfigure works of nature or destroy beauty anywhere are to be condemned. It is doubtful whether such advertising is profitable in any way. It repels more people than it attracts. Fortunately advertising of this nature is on the decline.

The Principle of "Caveat Emptor."—In merchandising, the rule is that the purchaser must be on his guard. After a sale is made, provided there was no misrepresentation, the incident is closed. Misrepresentation may come without any words being spoken. In selling food it is implied that it is fit for human consumption. The purchaser has a certain degree of protection in the desire of the seller to maintain his reputation; he may generally depend upon goods sold under a trade-mark.

The requirement of the government, under the Pure Food Act, that certain food products and drugs must be guaranteed by the packers, further protects the purchaser.

Purchasers of stocks in bogus or highly speculative corporations have no adequate protection in most states. If no misrepresentation occurred, the sale stands. Stocks and bonds that are sold on the New York Stock Exchange are all genuine securities of reputable corporations; no others can be listed. But stocks of corporations of the most doubtful value are freely sold in most places. A large number of people are always eager to invest in any "get-rich-quick" concern. A few years ago mining stocks of this nature were being sold. Now oil stocks are more in demand. It is a common saying that some promoters can sell the blue sky. Hence "blue-sky laws" have been passed in some states to prevent the sale of securities of doubtful companies. These "blue-sky laws" require that

no stock shall be sold unless permission is obtained from a designated state official. To obtain this permission the exact status of the corporation and its prospects must be submitted and sworn to under oath.

Summary.—Merchandising is one of the chief employments of our people. Good merchandising consists in giving full value and giving it in a pleasant manner. The seller of an article should benefit and so should the purchaser. Supplying goods in the quantity in which they are desired and at the time they are desired is the function of a dealer. Storing goods when they are plentiful and selling them when they are scarce is an economic service. The high cost of selling is the result of demands from the public for increased service. Advertising is a legitimate business expense. The purchaser pays for advertising, but the cost is usually slight to each purchaser. The legal principle of *caveat emptor* means that the purchaser must be on his guard. This does not justify misrepresentation.

TOPICS FOR DISCUSSION, DEBATE, AND SPECIAL REPORTS

1. What are the advantages of "chain stores"? What are the disadvantages?
2. Why have the mail-order houses been able to do such a large business? What advantages do they have over the local dealer in a small town? Is it fair to local dealers to patronize mail-order houses?
3. Give some personal experiences in dealing with good salesmen; with poor salesmen.
4. Secure a copy of a popular magazine and show what advertisements you consider the best. Show why they are better than others.

5. Write a suitable advertisement for a real-estate development near your city. Write an advertisement for a toilet-soap.
6. Advertisers wish to know what sort of advertising is most profitable. How can they get this information?
7. In the State of New York any one is at liberty to remove advertising signs which are placed upon public property along the public roads. Give your reasons for approving or condemning this legislation.
8. What advertising do you think is harmful to a community?
9. Most physicians and dentists consider that it is undignified for them to advertise. Show why you agree or disagree with them.
10. Should churches advertise? Write an advertisement which you would consider proper for a church.

CHAPTER XV

INSURANCE

What is Insurance?—Insurance is a protection against risk. Financial loss caused by death, accident, illness, fire, flood, theft, and other perils may be partially or wholly avoided by insurance. Insurance secures freedom from anxiety. A man whose house is insured benefits though his house does not burn. A man whose life is insured has a knowledge that those who are dependent upon him will not suffer from poverty if he should die. This is worth what it costs.

Insurance has sometimes been compared to gambling. It has been alleged that if a person insures his life for $1,000 by paying a premium of thirty dollars a year, he is betting thirty dollars against $1,000 that he will die during the year. This is incorrect. He is purchasing protection and he receives it. This is an economic service and gambling never renders an economic service.

Fire Insurance.—In its modern form, Nicholas Barbon of London originated fire insurance. This was in the year 1667, one year after the great fire in London. Barbon insured buildings only. Richard Povey, also of London, in 1706 added protection of goods. At first the business was conducted by individuals, but in 1720 the London Assurance and the Royal Exchange Assurance were granted corporate charters. The first American company was

organized in Charleston, South Carolina, in 1735. However, it survived only a few years. The Philadelphia Contributionship was founded in 1752. Benjamin Franklin was interested in this company and served as a director for several years. By the beginning of the nineteenth century the country was well supplied with fire-insurance companies. Many of them failed through incompetent management. As a result the state governments undertook to exercise supervision over the conduct of insurance corporations.

Most insurance against loss by fire is carried by large companies doing business over the entire country. This spreading of risks over a large field eliminates the danger that a company may become bankrupt by a great local fire. To protect itself further against a local loss, a company finding itself carrying too many risks in one locality will reinsure some of them in another company.

The Contract.—A fire-insurance contract is known as a policy. This policy describes the property insured, states terms and rates, and how long the insurance is to last. The rate charged depends upon the nature of the property, upon the character of the neighboring buildings, and upon the protection against fire furnished by the community. Fire-insurance contracts generally run for three years. Companies will insure for three years for twice the amount charged for one year.

Prevention of Fire.—The losses by fire in the United States are annually greater than those in any European country. It would be unfair to draw the conclusion that Americans are less careful in preventing fires than are Europeans, because there are few wooden houses in Europe,

and private houses are less thoroughly heated there than in America. The economic loss by fire is very great; in one year (1917) the fire losses in the United States amounted to $250,753,640; during the year 1917 in New York City alone there were 14,053 fires, with a loss of $14,278,523. Doubtless a large proportion of this loss could have been prevented by greater care in regard to flues, keeping live coals from contact with wood, and cleaning away rubbish. In some cities there is a day each year set apart as "fire-prevention day." On this day citizens are asked to inspect stoves and flues, clean closets and cellars, and to see that danger from fire is reduced as much as possible.

Lloyds.—A man whose name was Lloyds kept a coffee-house in London in the seventeenth century. This place became a resort for men engaged in shipping and foreign trade. Marine, or sea, insurance grew to be a part of the business transacted, and the famous organization known as Lloyds perpetuates the name.

Lloyds does not insure property of any kind but furnishes headquarters for individuals and companies engaged in the insurance business. It has a system for the inspection of ships with agents in every important port all over the world. The persons who do business at Lloyds specialize in marine insurance but write every variety of insurance. At Lloyds a person who is planning to give a pageant may be protected against rain, a dealer in court costumes may be insured against the court going into mourning, or the risk of war may be the object of a policy.

Life Insurance.—The first real life insurance company was the "Old Equitable" of London, organized in 1762.

The beginning of life insurance in America was a society formed in 1759 in Philadelphia for the benefit of Presbyterian clergymen and their families. The Insurance Company of North America was organized in 1796. This was followed by the New York Life & Trust Company in 1830. The first mutual company was the Mutual Life Insurance Company of New York, organized in 1843.

Life-insurance companies are either stock companies or mutual companies. The latter are supposed to be managed by the policyholders, but actually the management is in the control of a small group of financiers. A very considerable amount of life insurance is carried by fraternal organizations of various kinds, losses being paid by assessments. These societies are subject to the inspection of state departments of insurance and are obliged to conduct their business on approved business lines.

The Life-Insurance Policy.—The contract between the insured and the insurer, known as the policy, must conform to state standards. There are various kinds of policies, the most common are straight life, limited-payment life, and endowment. A straight life provides for life insurance, the premiums payable at stated intervals so long as the policy is in force. A limited-term policy provides for a certain number of premium payments. After these have been made the policy is "paid-up" and no further premiums are required. An endowment policy furnishes protection during the term for which it is written and, if the insured is living at the end of the term, the amount of the policy is paid to him.

Dividends.—Dividends are payments made to policyholders while the policy is in force or, in addition to the

principal when an endowment policy becomes due. Dividends spring from two sources:

1. Insurance is generally based on the assumption that the rate of interest is 4 per cent. Should the company be able to lend its funds at more than 4 per cent there will be a surplus.

2. The premiums are a little more than necessary to cover the risk.

Dividends may be used at the option of the policyholder either to reduce the next premium or to increase the amount of insurance, or may be paid in cash.

The Scientific Basis of Life Insurance.—Though the future cannot be foretold in reference to an individual, if a large number of persons in good health at any specified age be taken, it can be told how many will be surviving at ten, twenty, or any number of years. There are a number of mortality tables calculated for every age, but the American Experience Table is most widely used in the United States. The accuracy of these tables is manifest from the existence and strength of American insurance companies. Of course the insured pays more than the amount of risk, as the premiums are "loaded" to cover the overhead charges and to give a profit to the company. Part of the earnings of the stock companies is paid to the policyholders in dividends, and in mutual companies the policyholders share in the earnings.

State Supervision of Insurance.—To protect the public against improperly organized or poorly managed companies, the various states prescribe the form of insurance contracts which may be written, and supervise, through a superintendent of insurance or other state official, the con-

duct and resources of the company. The insurance companies find reason to complain of the lack of uniformity of state regulations and especially of the burden of taxation which they are obliged to bear. They would prefer Federal regulation because it would be uniform throughout the states, and they claim that high taxation is against the interests of the policyholders, as it must be passed on to the insured.

In Italy life insurance is a State monopoly. New Zealand engages in life insurance as a State activity but permits private companies to do business. Wisconsin, after enacting insurance laws which were regarded as unduly harsh by the insurance companies and which led some companies to withdraw from that state, entered upon life insurance as a state enterprise in 1913.

Old Age Insurance.—A very large number of people have provided for their old age by insurance ever since endowment and annuity forms of insurance have been written. Many persons are unable to afford the expense of thus providing for old age. Endowment for old age in the form of pensions for soldiers, policemen, firemen, and teachers has long been common in this country. Sometimes the whole expense is borne by the public; sometimes the expense has been shared by the annuitant. The argument in favor of compulsory insurance for state and city employees of a non-political nature who are receiving a wage or salary insufficient to enable them to provide for old age, seems just as strong when considered in reference to those who are in private employ. In Germany there is compulsory old-age insurance for most employees, the employer and employee sharing the expense and the State

adding a contribution of fifty marks annually. In Great Britain, Australia, and New Zealand every working man is given a small pension when he reaches the age of seventy provided his annual income is below $153 a year. The entire cost of these pensions is borne by the State.

Accident Insurance.—The chance of accident is ever-present. Numerous private companies insure against accident, but on account of the expense few working men can avail themselves of this insurance. The British Workmens' Compensation Act of 1897 requires the employer, in case of disability on account of an accident incurred while engaged in work, to pay one-half of the former wage, not exceeding one pound per week, and in case of death from accident an amount equal to three years' wage but not less than £150 nor more than £300. Most British employers of labor insure their employees in a liability insurance company, though the law does not prescribe this, permitting employers to meet its conditions in any way they may prefer. In Germany in 1884 an act was passed which compelled employers of labor to insure their employees against accident at a rate of two-thirds their former wage in case of total disability and lesser amounts for partial disability. Until recently laborers in the United States had only the protection afforded by a lawsuit against their employer in case of accident. If it could be shown that the employee was negligent or that a fellow employee was negligent no relief was afforded by law. Recently many of the American states have enacted laws requiring employers to insure their working men against accidents.

Insurance against Sickness.—Insurance against sickness is more difficult to manage than other forms of insur-

ance, as the chance of fraudulent claims is greater. However, insurance against sickness is written by many companies and fraudulent claims are reported to be relatively rare. In Germany there has been compulsory insurance for sickness among working men since 1883, one-third of the expense being borne by the employer and two-thirds by the employees. Great Britain introduced compulsory insurance of this kind in 1911, but in the United States there is no insurance against sickness for working men, except such as is afforded by fraternal orders and the aid that may be extended by labor unions.

The Usual Objections to State Insurance of Working Men.—It is often claimed that insurance of laboring men makes them improvident; if old age, accident, and sickness are provided for by insurance, the laborer will not be encouraged to provide for himself. Unfortunately, without insurance the ordinary laborer either cannot or will not provide against these perils, and the amount of the insurance is never so great as to act as a deterrent to savings. It is further argued that it is a burden upon the employer, but if the same burden is placed upon all employers it becomes a part of the cost of production and may be shifted to the public, where it belongs. The statement, often made, that the payment or pension is spent foolishly amounts to nothing. Wages are often spent foolishly and so are the salaries of professional men.

Group Insurance.—Group insurance is a recent form of protection against risk which has become popular. Any employer of fifty persons may take out a group policy which will protect each of the fifty. Only one policy is written, but a certificate is given to each person insured.

The group policy usually covers only the risk of death, but may include other risks. Premiums on group insurance are lower than in other kinds of insurance, and medical examination is not required if the protection is only against the risk of death. All the great life-insurance companies will insure on the group plan. Many bankers, college trustees, and manufacturers have taken out group insurance for their employees.

Summary.—Insurance is protection against risks. The insured receives what he purchases, whether or not misfortune comes to him. Fire insurance is the oldest kind of insurance. It is now regarded as a part of the necessary expense of business. Life insurance has become prominent since the middle of the last century. The contract between insurer and insured is called a policy. In life insurance these policies are ordinarily straight life, limited-payment life, or endowment. Life insurance has a scientific basis in the mortality experience tables. Insurance against old age, accidents, and sickness are among the more recent kinds of insurance. Insurance of certain classes of working men is compulsory in Germany and England. Some American states require employers to insure their employees against such accidents as may happen while actually engaged in their duties.

TOPICS FOR DISCUSSION, DEBATE, AND SPECIAL REPORTS

1. Some of the great railroad systems insure themselves against fire. Why might it not be a wise policy for a grocer to place the same amount in his bank each year that insurance would cost him and thus insure himself? Is there any difference between his risk and that of a railroad company?

2. Make a list of varieties of insurance not mentioned in the text. What are the advantages of these kinds of insurance? What are the disadvantages, if any?
3. Should a man twenty-five years of age insure his life on the straight life, the limited payment, or the endowment plan? What are the advantages of each? Which plan would be better for a man fifty-five years old?
4. What fraternal organizations having lodges in your city insure their members? What kinds of insurance do they provide?
5. Is any insurance of workmen required in your state? Give the principal requirements of the law. What do the employers think of it? The employees?
6. How does insurance differ from gambling?
7. Some people have said that in life insurance a person has to die to win. Show the fallacy of this argument against life insurance.

CHAPTER XVI

MONEY

What is Money?—Whatever passes freely from hand to hand in the purchase of goods, or services, or in payment of debt is money. In colonial days wampum and tobacco were so used. They were money, because they did the work of money. Now coins or notes issued by the government are money; so are bank-notes issued by banks under authority given by the government. Checks and drafts are not money, because they do not pass freely. A dollar bill will be accepted anywhere without regard to the character of the person who offers it. A check or draft ordinarily will not be accepted for the purchase of a railroad ticket or for postage stamps, and an unknown person always has difficulty in using checks or drafts.

What Money Does.—Money performs three services:

1. It serves as a medium of exchange.
2. Money is a measure of value.
3. It is a standard for deferred payments.

Money as a Medium of Exchange.—Exchanges may take place without the use of money. Barter was employed long before money was known. Barter, or the direct exchange of one thing for another, is even now frequently employed. In the rural districts eggs and butter are taken to the store and exchanged for coffee and sugar. Even in the city some newspapers have an "exchange" column, where those who have articles they do not need

may advertise to exchange them for goods which they desire. Barter is inconvenient because the person who wishes an article frequently cannot find another person who both desires the article to be bartered and has something acceptable to offer in exchange. For example, you may have a bicycle which you wish to exchange for a cornet. There may be difficulty in finding a person who wants a bicycle and has a cornet. Then there is lack of uniformity in the values of articles. The cornet may be worth two bicycles and something has to be paid "to boot."

Money overcomes all these difficulties. It is in universal demand and can be offered in such units as may be desired. Every one, except a miser, wants money for what it will purchase. It may be spent for present wants or kept to supply future wants.

Money as a Measure of Value.—To-day values of goods and services are commonly measured in terms of money. When we say that a horse is worth $200, a cow worth $85, and a dog worth $1, we measure all these by a common standard. Values may be measured in terms of a standard which is not used as a medium of exchange. In colonial times values were expressed in terms of English money, but exchanges were effected by many varieties of foreign coins. In some parts of the United States values are still expressed in terms of shillings, though there are no shillings now in circulation in the United States.

Money as a Standard for Deferred Payments.—Goods or services may be bought now and payment made at some time in the future. Justice to both debtor and creditor demands that the purchasing value of money should change as little as possible. A debt for $100, contracted in 1900

and paid in 1920, would not have returned to the creditor the purchasing power which he delivered in 1900. A debt for $100, contracted during the World War and paid now, would require the debtor to return more purchasing power than he received. Changes in the value of money always injure either debtor or creditor.

Qualities Necessary for Good Metallic Money.—A metal to be used as money should possess *large value in small compass*. It should exist in quantities sufficient to furnish the necessary amount of money. In the second place it should have *stability of value*. Absolute stability of value is impossible, but it should be a metal which differs in value as little as possible from time to time. Another necessary quality is *durability*. A good metal for monetary purposes must be one which is easily recognized and difficult to counterfeit. This quality is known as *cognizability*. Other desirable qualities are *homogeneity*, meaning that each unit of a certain weight and fineness must be like any other unit of equal weight and fineness, and *divisibility*, which means the ability to be divided easily into units without loss of value.

The qualities mentioned above attach especially to gold and silver, though more particularly to gold. Gold has become the recognized standard of all the great commercial nations of the world, silver being retained as "token money," or change.

Coinage.—When metals were first used as money, they passed by weight. The names of such coins as the English pound, the Jewish shekel, and the Greek talent show that they were originally measures of weight. Coinage became an official guarantee of fineness and weight and did away

with the necessity of testing metals whenever exchanges were made. The coinage of money was originally the function of kings, and kings frequently reduced the amount of metal in coins, though the name of the coin remained the same. This practice is known as "debasing" the coin.

Seigniorage and Brassage.—Under the despotic sovereigns of mediæval Europe, debasing the coinage was common. Not infrequently the coins were debased under the guise of a charge for coinage which was called seigniorage and was maintained as a sovereign right. Money thus debased generally fell in purchasing value to the value in exchange of its metallic content. If a country had no foreign trade, debased coins might circulate for a time at their face value, if not issued in excessive quantities and if confidence existed that they could be passed to others. But debased coins will circulate in foreign countries only at the value of their metallic content. Seigniorage is not at present practised by any great nation.

Some European nations extract from the metal the cost of coinage; this is called brassage. The United States charges no brassage for its gold coins and has free coinage of no metal except gold.

Free Coinage.—A country has free coinage of a metal if it will coin all sufficiently large quantities of that metal which are brought to the mint. The United States will exchange gold coins of an equivalent weight for gold bullion, when brought to the mint in quantities to the value of $100 or more. This is free and unlimited coinage. The gold dollar contains 23.22 grains of fine gold. On account of the small size of the gold dollar, its coinage was discontinued in 1890.

The other metals used by the United States for monetary purposes are purchased in the market at current prices and coined as needed and as the law directs. The metallic value of none of the minor coins is equal to their face value. They circulate within the United States at par because they are not issued in large quantities and because they are sustained by the credit of the United States.

Gresham's Law.—According to Gresham's law—so called in honor of its discoverer, Sir Thomas Gresham—when two or more kinds of money are in circulation at the same time, the poorer money will tend to drive the better money out of circulation.

The application of Gresham's law is both national and international. A person who has a worn coin or a dirty paper dollar will put it in circulation and retain his better money, even though each has the same purchasing power. Gresham, however, meant his law to apply to coins which had the same face value, but different value as metals. If the metal in a coin has more value for use in the arts than for monetary purposes, it will be withdrawn from circulation and its metal used for making some piece of jewelry or other article. Moreover, no one would think of taking metal to the mint if its value as metal is greater than the value of the coin which would be made from the metal. Thus the supply of the metal for the better coin is cut off at the source.

In the payment of debts owed to foreign creditors coins are worth only their metallic value, hence the better money will go abroad and the poorer money will stay at home. The following illustration will make clear the way in which poor money drives good money out of circulation:

Let us assume that each of two countries has free coinage of gold and that each country has $1,000,000 in circulation and the rapidity of circulation in each country is the same and other conditions in the two countries are similar. Under these conditions one dollar would have the same purchasing value in each country. Now suppose that Country A puts into circulation $250,000 in debased silver; it will then have a total circulation of $1,250,000 and $1.25 will be required to buy what $1 would previously have purchased. In Country B prices have not changed and gold will flow from Country A into Country B because it will purchase 25 per cent more in the latter country. This will continue until the volume of money is the same in each country, but it will all be gold in Country B. Let Country A add another $250,000 in silver and it will drive another $250,000 in gold out of the country and by continuing this practice will in time lose its gold circulation and go on a silver basis.

Bimetallism in the United States.—The truth of Gresham's law is well illustrated by the history of attempts at bimetallism in the United States. When the mint was opened in accordance with the Act of 1792, there was *free coinage* of both gold and silver at the ratio of 15 to 1, the silver dollar having 371½ grains of fine silver and the gold dollar 24¾ grains of fine gold. The silver dollar was therefore fifteen times as heavy as the gold dollar. This was at the time the market ratio, but the market ratio soon changed, so that gold was more valuable as metal than as money. Under these circumstances no more gold came to the mint and what had been in circulation disappeared. In 1834 Congress changed the ratio to 16 to 1,

but this time it overvalued gold, and silver disappeared from circulation. In order to retain subsidiary silver coins, or change, in circulation Congress reduced their weight. The gold discoveries in California and Australia still further separated market and mint valuations, and no silver dollars were in circulation when the Civil War commenced. Excessive issues of paper money during the war drove both gold and subsidiary silver coins out of circulation. Apparently Congress had now come to recognize the impossibility of national bimetallism, for an Act of 1873 dropped the silver dollar from the coins of the United States. However, the discovery of rich silver deposits in Nevada and other Western territories and states caused a drop in the price of silver and by 1878 the market ratio was 18 to 1. At once there was created a demand for the free coinage of silver. This demand came from the owners of silver-mines, from debtors who wished to pay their debts with cheaper money, but chiefly from those who honestly but erroneously thought bimetallism could be maintained and that it would be advantageous to the country.

A compromise between the free-silver advocates and the supporters of the gold standard was arranged in 1878. This was known as the Bland-Allison Act. The terms of this act empowered the Secretary of the Treasury to purchase for coinage purposes not less than $2,000,000 and not more than $4,000,000 worth of silver every month. The free-silver men had predicted that this would cause a rise in the price of silver, but silver continued to fall in value, as the mines were producing increased quantities. The demands for the free coinage of silver again were raised and again a compromise was made by the Sherman

Act of 1890, which increased the amount of silver purchases to 4,500,000 ounces of silver a month to be purchased at a price not exceeding $1 for 371.25 fine grains. This silver was to be purchased by the issue of treasury notes, which were redeemable in coin and were full legal tender, and the silver was to be coined as demanded for redemption of the notes.

The Sherman Act did not stop the fall in the price of silver, but it did result in a large amount of gold going abroad. Large blocks of American securities held in Europe were sold in America and the proceeds sent to Europe in gold, as Europe feared America was about to go on a silver basis. The gold reserve, that is, the gold held in the Treasury chiefly to redeem the greenbacks, was depleted by holders of greenbacks demanding gold. Treasury notes, issued under the Sherman Act, were in the same manner presented for redemption in gold, in which coin they were very properly redeemed though the law authorized redemption in either gold or silver. A commercial depression was coincident with the financial unrest and some action was necessary to relieve the situation. President Cleveland called a special session of Congress in the autumn of 1893 and recommended the repeal of the silver-purchase clause of the Sherman Act, which repeal was accomplished after a bitter struggle in which partisan lines were largely disregarded. Not until the advocates of free coinage of silver at the ratio of 16 to 1 were defeated in two presidential campaigns was the United States definitely placed upon a gold standard in 1900. The Act of 1900 requires the Secretary of the Treasury to keep all money of the United States equal to gold.

International Bimetallism.—We have seen that national bimetallism is impossible. International bimetallism has some advocates. It is held by them that the great nations of the world, by adopting bimetallism at any reasonable ratio, could maintain that ratio because of the immense demand for silver which would be created. Whether such would be the result is at least doubtful, and the experiment is not likely to be tried. The metallic money of the United States has no superior in the world. Gold coins of our country are good anywhere in the world. Our silver coins are as good as gold at home. Under these circumstances an experiment in international bimetallism has no attraction for us.

Summary.—Barter is the exchange of one article for another. Barter is often inconvenient and money has come into general use. Money performs three important services: it is a medium of exchange, a measure of value, and a standard for deferred payments. Good money is made from metals that have large value in small compass, stability of value, durability, homogeneity, and divisibility. Gold and silver possess these qualities, but gold to a greater degree than silver. Free coinage is the coinage of all metal of a certain kind that may be presented at the mint in sufficiently large quantities. The United States has free coinage of gold. Gresham's law is that a poorer money drives a better money out of circulation. It is well illustrated by the history of bimetallism in the United States. Token money, or change, is issued in small quantities in the United States. We see token money often because of its rapidity of circulation.

TOPICS FOR DISCUSSION, DEBATE, AND SPECIAL REPORTS

1. Consult one of the more important histories of the United States for an account of the use of wampum and tobacco for money in colonial times.
2. What are the smallest gold coins ever issued by the United States? Why are they not now issued? What token money was once issued by the United States and then discontinued? Why discontinued? What would be the advantages if the United States were to coin half-cents? What disadvantages?
3. What should a person do who has received a counterfeit coin and does not know from whom it was received?
4. The story is told that a ferryman plying his trade on the Rio Grande started the day by entering a place of refreshment and purchased a drink for which he offered in payment an American dollar and received in change a Mexican dollar which was at that time worth ninety cents in the United States. Going to the Mexican side he ordered another drink and paid for it with his Mexican dollar, receiving in exchange an American dollar then worth ninety cents in Mexico. This process was repeated each trip and in the evening he had his original American dollar on the American side of the river. Assuming that the story is true, who paid for the drinks?
5. Read in one of the larger histories of the United States in our own time about the free-silver campaigns of 1896 and 1900. What arguments were made for free silver? What were made against it?
6. Discuss the advisability of the United States resuming the coinage of the three-cent and the two-cent piece.

CHAPTER XVII

PAPER MONEY

Varieties of Paper Money.—There are three kinds of paper money: redeemable, non-redeemable, and bank-notes. The redeemable paper money is issued by the government of the United States and may be either in the form of certificates or government notes. The certificates are worded as follows: "This is to certify that there have been deposited in the Treasury of the United States —— silver (*or gold*) dollars, payable to bearer on demand." The notes read: "The United States will pay to bearer on demand —— dollars." Non-redeemable paper money is usually a promise to pay on demand or at some time in the future. During the Civil War the United States issued promises to pay, which are known as Greenbacks, but was unable to meet its obligations until 1879. Now all paper money of the United States is redeemable. Bank-notes are promissory notes issued by banks. They read as follows: "The Federal Reserve Bank of New York will pay to bearer on demand —— dollars."

Redeemable Paper Money.—Redeemable paper money is secured by gold and silver held for that purpose in the treasury of the government. Paper money of this sort is just as good as the metal for which it may be exchanged. It saves the wear and tear on the metal and has a convenience in use which makes it preferable to metallic

money for some purposes. The gold and silver certificates of the United States are examples of redeemable paper money.

It is possible for a country to issue notes in excess of the redemption fund. There are outstanding about $346,000,000 in greenbacks, but the reserve fund is only $150,000,000, though the Secretary of the Treasury is required to sell bonds to replenish the gold reserve whenever it falls below $100,000,000. While there is public confidence in the currency of the country, few greenbacks are presented for redemption, but they are none the less a weak point in the monetary system of the United States, and it would be a wise policy to reduce them gradually to $150,000,000 or to retire them from circulation.

Irredeemable Paper Money.—Irredeemable paper money is merely a promise to pay. The value of such money depends upon the credit of the country. During the Revolutionary War, the Continental Notes were of so little value that the term "not worth a continental" signified a near approach to worthlessness. The phrase "not worth a continental dam," signified not worth a counterfeit (damnatus, or condemned) continental note. Irredeemable paper money has been used chiefly in time of war. To compel people to accept it, it is often made *legal tender*, by which it is made legally receivable for debts.

Since the government compels people to take such paper money, legal-tender notes of this sort are a *forced loan*.

The United States had an important experiment with irredeemable paper money during the Civil War. The first issue of government notes during the Civil War was

in 1861, when $50,000,000 in "demand notes" were issued. They were not made legal tender, but were receivable for all payments due the government. Early in 1862 a new issue of $150,000,000 in government notes was placed in circulation. These notes were legal tender and soon became known as "greenbacks." They had no security back of them except the promise of the United States. From time to time additional notes were issued until a total of $430,000,000 in greenbacks was in circulation. Gold went out of circulation and prices rose with every fresh supply of greenbacks. A brisk speculation in gold was conducted in the "gold room" in New York, the value of gold in terms of greenbacks fluctuating not only with the amount of greenbacks in circulation but with general conditions in the country and especially with the success or failure of the armies of the United States in the field of battle. In 1862 it took $1.13 in greenbacks to equal a gold dollar; in 1863 the greenback equivalent of a gold dollar was $1.45, and in 1864 it was $2.03. Greenbacks remained at a discount until just before the resumption of specie payments in 1879. Greenbacks were at first thought to be only a temporary expedient, and in 1866 Congress passed an act for their gradual retirement, but the act was repealed two years later. An act of 1878 provided that there should be $346,681,000 in greenbacks outstanding and authorized their re-issue when presented to the Treasury. Since 1900 they have only been re-issued in exchange for gold.

The greenbacks demoralized the circulating medium during the war, cost the government vast sums of money because it sold bonds for which greenbacks were paid but which were redeemable in gold, and created a demand for

"cheap money." Besides all this the greenbacks were partly responsible for the speculative mania which swept over the country. There is no need of the issue of irredeemable paper money by a great country even in time of war. Napoleon conducted one of the greatest series of wars without resort to such an expedient.

Fiat Money.—Irredeemable paper money is often known as fiat money, because the government says that it is money.* Such issues will circulate among people accustomed to the use of paper money, especially if made receivable for taxes and other government dues. It will, in accordance with Gresham's law, drive better money out of circulation. Excessive issues of paper money will cause prices to rise and will lead to a fictitious prosperity for a time. When prices are rising, business men expand their interests and all seems well, but not to creditors whose credits have less purchasing power and not to wage-earners and salaried employees, because their pay rises more slowly than prices. The end of inflation of the currency is often a panic, brought about by overspeculation. The remedy for inflation is deflation, which is a painful though necessary process.

Bank-Notes.—A large part of the circulating medium of most countries consists of bank-notes. These are promises to pay, usually on demand; they are paid out as money by the banks and circulate among the people as money. Until 1866 banks throughout the United States issued bank-notes under the authority of the laws of the several states. Some states, notably New York, prescribed con-

* Fiat is third person singular, present, subjunctive, of the Latin verb "fio." Literal meaning is "let it be done."

ditions which made their bank-notes as good as gold, but other states permitted banks to issue notes almost without any regulation. The issues of these "wildcat banks" circulated at various rates of discount, depending upon the credit of the issuing bank. Merchants were necessarily careful to scrutinize every note and were obliged to consult a periodical issued for that purpose in order to find the current quotations on notes of various banks.

The National Banking System.—The national banking system of the United States was established in 1863, chiefly to provide a market for United States bonds. The National Banking Act has been amended from time to time, but the essentials remain as in the original act. As the act now stands the capital of a national bank must not be less than $25,000 in a place of 3,000 population, and the capital necessary for a national bank increases with the size of the place until it reaches $200,000 for cities of more than 50,000 population. These banks are privately owned, and any bank which conforms to the law may become a national bank. These banks may issue bank-notes, which are not legal tender, but are receivable for taxes, except duties on imports, under the following conditions:

1. Each bank must invest part of its capital in bonds of the United States.

2. By depositing bonds in the Treasury of the United States, authority is given to issue notes not to exceed the par value of the bonds. Should the bonds fall below par value the Comptroller of the Treasury, who has charge of the administration of the law, may require deposits of additional bonds.

3. There must be deposited in the Treasury of the

United States a fund in gold equal to 5 per cent of the outstanding bank-notes of the bank.

4. No bank may issue notes in excess of its capital.

The national bank-notes were absolutely safe. A prohibitive tax of 10 per cent put out of existence the bank-notes of state banks.

Elastic Currency.—Elastic currency is currency that expands and contracts in volume with varying demand for money. In the autumn there is always an increased demand for money on account of the movement of the crops. Western banks, which have deposited a part of their reserves in New York and Chicago, call for a return of these deposits in the autumn when they are needed at home. The Eastern banks need no less currency in the autumn, and unless the currency is elastic a stringency in the money market develops every autumn. In times of financial panic the need of an elastic currency is even more pronounced. Ordinary commercial instruments of credit, by means of which in normal times a vast amount of business is done, become acceptable with more and more difficulty as a panic grows and at last may be refused. At such times people demand "real money," and the collapse of credit results in a demand for additional currency.

The national bank notes were inelastic. The first step toward giving an elastic currency was taken in 1908 when the Aldrich-Vreeland Act authorized issues of notes by national banks upon other securities than United States bonds. The notes thus issued were taxed at the rate of 5 per cent a month for the first month, the tax increasing 1 per cent a month until a maximum of 10 per cent was reached. As the rate of interest on money rises with

stringency in the money market, the Aldrich-Vreeland Act would tend to relieve the situation in a panic, but it would not take effect until the situation was already bad.

The Federal Reserve System.—The Federal Reserve Act of 1913 gave the United States a new banking system.

The Federal Reserve Board is the directing head of the system. This board consists of seven members, five appointed by the President of the United States and two ex-officio members: the Secretary of the Treasury and the Comptroller of the Treasury. The country is divided into twelve districts and there is a Federal Reserve Bank in each district. These banks are now in New York, Boston, Philadelphia, Richmond, Atlanta, Cleveland, Chicago, Minneapolis, St. Louis, Kansas City, Dallas, and San Francisco. The stock of the Federal Reserve Banks is all held by other banks and they have no direct dealings with the public; they are banks which deal only with banks. Every national bank is required to be a member bank. This it may become by subscribing to stock of the Federal Reserve Bank in its section equal in amount to 6 per cent of its capital and surplus. Trust companies and state banks may become member banks if they so desire and if they meet the prescribed conditions.

Issues of Currency by Federal Reserve Banks.—There are two kinds of currency which may be issued by Federal Reserve Banks: Federal Reserve Bank Notes and Federal Reserve Notes.

1. Federal Reserve Bank notes. These notes are very similar to national bank notes. National banks are authorized to sell the bonds which are security for their national bank notes to a Federal Reserve Bank. The national

bank notes will then be retired, and the Federal Reserve Bank will hold these bonds as security, and issue Federal Reserve Bank notes. It is expected that Federal Reserve Bank notes will gradually replace national bank notes.

2. Federal Reserve notes. Much more important than Federal Reserve Bank notes are Federal Reserve notes. Federal Reserve notes may be issued upon the security either of gold or commercial paper deposited by a member bank in a Federal Reserve Bank. In each case the security is held by the Federal Reserve Bank, which sends to the member bank the Federal Reserve notes, and these are put into circulation the same as any other money. Notes secured by gold are secured dollar for dollar, thus making them similar to gold certificates. A reserve of 40 per cent in gold is required for notes secured by commercial paper, though the law permits this reserve to be waived by consent of the Federal Reserve Board. It will be noted that additional currency can readily be secured whenever necessity arises; this is one of the strong features of the Federal Reserve Banking Act. An issuing bank may redeem Federal Reserve notes, but no Federal Reserve Bank may pay out notes of another Federal Reserve Bank, but must return them for credit or redemption. Federal Reserve notes are virtually guaranteed by the United States.

Money in Circulation in the United States.—The table on page 198 shows the various kinds of money in the United States on February 1, 1921.

This table shows that most of the metallic money of the United States is in the form of gold coin. Most of it is held as reserve by the banks and as a redemption fund for

	General Stock of Money	Held in Treasury	Held by Federal Reserve Banks and Federal Reserve	In Circulation Feb. 1, 1921	In Circulation Jan. 1, 1879
Gold coin (including bullion in Treasury)	$2,853,480,649	$427,621,611	$1,005,907,276	$960,224,657	$96,262,850
Gold Certificates	.....	.....	155,358,280	304,368,825	21,189,280
Standard Silver Dollars	269,746,326	22,243,794	.....	97,720,180	5,790,721
Silver Certificates	.....	.....	.....	148,177,905	413,360
Subsidiary Silver	271,511,384	7,836,848	.....	263,674,536	67,982,601
Treasury Notes of 1890	.....	.....	.....	1,604,447	.....
United States Notes	346,681,016	3,938,348	.....	342,742,668	310,288,511
Federal Reserve Notes	3,484,226,195	10,223,811	369,348,520	3,104,653,864	.....
Federal Reserve Bank Notes	225,938,400	5,027,334	.....	220,911,066	.....
National Bank Notes	719,653,927	22,467,063	.....	697,186,864	314,339,398
Total	$8,171,237,897	$499,358,809	$1,530,614,076	$6,141,265,012	$816,266,721
Population of continental United States estimated at				107,389,000	48,231,000
Circulation per capita				$57.19	$16.92

gold certificates. The people of the United States prefer paper money to gold, so long as the paper money is as good as gold, and not much gold is used in ordinary business.

It should be noticed that Federal Reserve notes have become the principal paper money of the United States, although a considerable volume of national bank notes is still in circulation.

Summary.—Paper money is of three kinds: redeemable, non-redeemable, and bank-notes. These look very similar, but are worded differently. The United States now has no non-redeemable paper money. During the Revolutionary and Civil Wars our experience with paper money was such that we are not likely to repeat it. Bank-notes are issued by national banks and by Federal Reserve Banks. The Federal Reserve notes are designed to give us an elastic currency, that is, a currency which rises and falls to meet the conditions of demand. All the money of the United States is as good as gold.

TOPICS FOR DISCUSSION, DEBATE, AND SPECIAL REPORTS

1. What paper money in less denominations than one dollar has the United States issued? Under what circumstances was this money issued?
2. Give a history of issues of paper money during the Civil War.
3. Investigate the experience of the Confederate States of America in reference to paper money.
4. Compare the National Bank notes and the Federal Reserve notes.
5. Get the opinion of a business man, a lawyer, and a banker on the Federal Reserve notes.

CHAPTER XVIII

MONEY AND PRICES

The Quantity Theory of Prices.—According to the quantity theory, prices vary directly with the amount of money in circulation. An increase in the volume of money will raise prices, a decrease will lower prices. This theory is accepted with the modification that other things being equal, it is true. Rapidity of circulation is an item to be considered. Two countries may have the same amount of money in circulation and there may be the same number of exchanges to be made, but if the money of one country circulates more rapidly than that of the other, it is doing more work, which is equivalent to its having a larger amount of money and has the same effect on prices. Instruments of credit, like checks and drafts, may also take the place of money to a greater extent in one country than another and in the same country at different times.

Effects of Changes in the Volume of Currency.—Any changes in the amount of money in circulation will be reflected in prices. Inflation inflicts an injury on creditors, as debts can be paid in less purchasing power and contraction injures the debtors. Inflation tends to promote speculation and gives rise to a fictitious prosperity for a time. With prices rising there is a rush to buy and to manufacture, but this leads to overproduction in some lines of goods and a reaction must come, which frequently results in a panic. Inflation seriously affects the purchasing power of returns from investments as well as pensions

and insurance. If all prices were to rise with the same degree of celerity, less harm would be done, but prices do not rise uniformly. Prices of goods rise quickly, then profits and rents rise, but wages and salaries lag behind.

Contraction, or deflation of the currency, leads to a slowing down of industry and a difficulty in securing credit. It works harm to the debtor classes as they must pay more in purchasing power than they received when their debts were contracted.

The Multiple Standard.—To enable debts to be paid with equal purchasing power, despite changes in the value of money, several plans have been suggested. The simplest of these is a multiple standard. If a number of articles in common use be selected and their prices ten years ago be found and compared with their prices now, it would be easy to show how much money would now be required to equal the purchasing power of a certain amount of money ten years ago.

The following table illustrates the principle of the multiple standard:

Goods which $100 would purchase in 1910	1 ton coal 1 suit woolen clothing 1 bushel wheat 1 bushel potatoes 1 stove 1 table 100 miles transportation Ordinary amusements for one month	To purchase similar goods in 1920, about $250 would be required.

Inflation and Contraction.—There are several ways in which the amount of money may be so increased as to be considered inflation of the circulating medium. Even though a country be on a gold standard, it is possible that

the opening of new and rich gold mines may lead to a rapid increase in the number of gold coins and consequently a rise in prices. Such a condition actually occurred when the mines in California and Australia were first opened. Such an inflation seldom lasts long, as the richer veins are soon exhausted and the expense of production returns to the old level. There may be inflation of metallic money in case the coin value is less than the metallic value and such money is coined in large quantities, and the inflation of paper money is familiar to all.

Contraction is the opposite of inflation. Contraction of gold coins might be caused by a failure of the mines to produce the amount of gold needed. Contraction in paper money may be the result of the withdrawal of some of the paper money from circulation.

Index Numbers.—Changes in prices may be indicated by index numbers. Index numbers may be found in a very simple way. The prices for any given time may be taken as base prices and changes in prices reckoned in relation to base prices. For example, take a ton of iron, a pound of cotton, a bushel of potatoes, and a bushel of wheat.

Article	Base Price Sept. 1, 1920	Base	Price, 1930	Percentage of 1920 base
One ton iron	$50	100	$25	50
One pound cotton	.20	100	.10	50
One bushel potatoes	1.50	100	1.50	100
One bushel wheat	2.75	100	1.00	36.36
		400		236.36
Average		100		59.09

Assuming that prices in 1930 will be as given in the above table, the index number for 1920 would be 400 and for 1930, 297; or, reducing each to an arithmetic mean, the index number for 1920 would be 100 and for 1930, 59.09.

The best-known index numbers for the United States are those of the United States Bureau of Labor, which are based upon the wholesale prices of 240 commodities. The rise of prices from 1914 to 1920 is indicated by the following table:

Year	Index Number
1914	100
1915	101
1916	124
1917	176
1918	196
1919	212

It should not be assumed that increase in prices has been wholly due to inflation of the currency. Other factors such as inefficiency of labor, profiteering, and the increase in taxation have also had their influence.

The Stabilized Dollar.—Professor Irving Fisher, the eminent economist of Yale University, has proposed a plan for "stabilizing the dollar" by abandoning the present standard gold dollar and substituting for it a paper dollar redeemable in gold but in a varying quantity of gold, the amount being so regulated as to keep the purchasing power of the dollar as nearly constant as possible. When prices rise, as indicated by index numbers, the dollar would be redeemable in a greater quantity of gold, thus bringing prices down; when prices fall the gold in exchange for the paper dollar would be decreased so as to raise prices.

Economists differ in regard to the probable efficiency of

Professor Fisher's proposal. The general impression seems to be that it would work well in normal times, but would prove an injury in times of panic or war. The plan could hardly be put into effect by one nation, as it would seriously disturb foreign exchanges in times of financial stress and, as explained by Doctor B. M. Anderson,* even if the plan were adopted by an international agreement, the index number might, in times of rapid changes in prices, have so different a relation to the scale of prices in one country as compared to another as to cause confusion in exchanges and general dissatisfaction. To adopt such a plan when prices are abnormally high would be, in Doctor Anderson's opinion, "to perpetuate all the suffering of people on fixed incomes."

Summary.—Other things being equal, prices will rise and fall with an increase or decrease in the amount of money in circulation. An increase in the amount of money sufficient to raise prices very much is called inflation of the currency. A material decrease in the volume of money is deflation, or contraction. Multiple standards and index numbers are methods whereby changes in the purchasing value of money may be measured. Professor Fisher has proposed a "stabilized dollar," or a dollar redeemable in different quantities of gold, the amount depending upon the purchasing power of gold at the time of redemption.

TOPICS FOR DISCUSSION, DEBATE, AND SPECIAL REPORTS

1. How do increases in the amount of money affect salaries? Have salaries of teachers risen as rapidly as has the cost of living?

* *The Fallacy of the Stabilized Dollar.* Published by the Chase National Bank of New York.

2. What class of persons benefited from the rise in prices during the war? What class of persons were injured?
3. What causes other than changes in the volume of currency affect prices? What is the tendency of prices now? Why?
4. Make an investigation of index numbers. References: Ely, *Outlines of Economics*, pp. 337–343; Fisher, *Elementary Principles of Economics*, pp. 247–257; Taussig, *Principles of Economics*, vol. I, pp. 291–293, 441.
5. Get the opinion of a banker or business man on Professor Fisher's plan for a stabilized dollar.

CHAPTER XIX

BANKING AND CREDIT

The Banking Functions.—There are three major services performed by banks:

1. Deposit.
2. Discount and loan.
3. Issue.*

Many minor functions are incidental to the banking business, such as the collection of checks, notes, bills of exchange and drafts, the buying and selling of securities, the renting of safe-deposit boxes and vaults, and the performing of many services of a fiduciary or commercial nature. The incidental functions of banks, many of which produce no revenue for the banks, are matters which cause the most expense in time and labor.

"Interest upon loans and investments is the bank's chief source of income, although the clerical work involved in the making of loans and discounts is in very small proportion compared with the tremendous outlay of time, labor, and overhead expense met with in providing services which will attract depositors. Thus it happens that the bank, viewed as a workshop or counting-house, may present a figure of extreme industry not in any way related to the earning power of the bank's resources. Between 75 per cent and 90 per cent of the accounting work of a commercial bank grows out of the services which the bank renders

* See Chapter XVIII, pp. 193–197.

its depositors, the bank rarely receiving any fee by way of payment, but looking to the income derived from the deposits for reimbursements and profit." *

Not all banks perform all the possible banking functions. The function of issue, described in a previous chapter, is confined in the United States to banks associated in the Federal Reserve banking system and such incidental functions as the safe-keeping of valuables and acting as trustee for estates, etc., are not performed by many banks.

The Deposit Function.—The deposit function needs little explanation. It is obviously of advantage to one who has more money than he immediately needs to deposit it in a bank for safe-keeping, even should the bank pay no interest. It is also advantageous to society that this be done, as deposits concentrated in a bank can be put to work, while if scattered among thousands of small holders employment for them is not so easy and the chance of loss is vastly greater.

Loans and Discounts.—The deposits in a bank at one time may amount to $400,000 and at another time may fall to $340,000, but the experience of the bank may show that the deposits never fall below $340,000. It is clear that the bank may loan a large part of its deposits to its customers, only being sure that its depositors may receive their money on demand. In addition to the deposits, the bank may lend its own funds or credit. A person coming to a bank to borrow may secure funds or credit, on his own note, usually indorsed by a second person, payable at some specified future time, usually not over three months. Funds may be secured without the in-

* Wolfe, *Practical Banking*, p. 22.

FORM NO. 8A

$1,000.00 *Brooklyn, New York City,* June 9, 1921.

On the 9th day of August next, after date, for VALUE RECEIVED I promise to pay to The ~~Nassau~~ TENTH National Bank of Brooklyn, or order, at said Bank One thousand Dollars, with interest at 6% per annum, having deposited with said Bank as collateral security for the payment of this note.

100 shares X R.R. Common

with such additional collaterals as may from time to time be required by any of the Officers of said Bank, and which I hereby promise to furnish on demand. If these required collaterals be not so given upon demand, then this note shall become due and payable. And I hereby give to said Bank, or its assigns, full power to sell, assign and deliver the whole or any part of said collaterals, or any substitutes therefor, or any additions thereto, at any Brokers' Board or at the New York Produce Exchange or elsewhere at public or private sale, at the option of such holder, on the non-performance of any of the promises herein contained, and without notice of amount due or claimed to be due, without demand of payment, without advertisement and without notice of the time or place of sale, each and every of which is hereby expressly waived; and on any such sale the Bank, its assign or any of the Officers of said Bank may purchase.

IT IS FURTHER AGREED, that any surplus arising from the sale of said collaterals, beyond the amount due hereon, shall be applicable upon any other note or claim of the said Bank arising directly or by assignment against me at the time of said sale, whether the same be then due or not due.

AND IT IS FURTHER AGREED, that any moneys or properties, at any time in the possession of The Nassau National Bank belonging to any of the parties liable hereon to said Bank, and any deposits, balance of deposits or other sums at any time credited by or due from said Bank to any of said parties, shall at all times be held and treated as collateral security for the payment of this note or the indebtedness evidenced hereby, whether due or not due, and said Bank may at any time, at its option, set off the amount due or to become due hereon against any claim of any of said parties against said Bank.

AND IT IS FURTHER AGREED, that upon the non-performance of any of the promises herein contained, that any and all notes or claims held by the said Bank at such time and arising directly or by assignment against me shall immediately become due and payable.

IT IS ALSO AGREED, that said collaterals may from time to time, by mutual consent, be exchanged for others, which shall also be held by said Bank on the terms above set forth, and may be applied to any other obligation now or hereafter to be incurred by me to said Bank, whether due or to become due.

Richard Roe

31 Court St. Brooklyn N.Y.

A PROMISSORY NOTE SECURED BY COLLATERAL

dorsement of a second person by the deposit of acceptable securities which will be held by the bank until the loan is paid and which may be sold to satisfy the loan if not repaid when it becomes due. These loans are known as collateral loans.

In most cases the borrower does not want money, but

wants a checking account to the amount of the loan, and in these cases no money passes; the bank has merely loaned its credit. A bank does not act as a depositor's agent in making a loan; it assumes the role of principal, and if the loan is not repaid the loss must be borne by the bank.

Bankers make a distinction between loans and discounts. A discount is a loan upon which interest is collected in advance. Discounts have a fixed date of maturity and a fixed rate of interest. Loans are often payable on demand and the interest is collected when the loan is paid.

Bank Reserves.—Ordinary bank deposits are payable on demand and hence a bank must keep on hand sufficient cash to meet probable demands. In a community in which comparatively little banking is done and deposits are left intact for long periods, a small reserve will be sufficient; in more active banking centres larger reserves are necessary. Reserves held against deposits should not be confused with reserves against Federal Reserve notes which are discussed in a previous chapter. The cash reserves held against deposits required by law vary from 12½ per cent to 25 per cent, depending upon location and whether they are state or national banks. It is estimated that for the whole United States one-fifth of the deposits are held as reserves. Obviously the larger the amount held as reserves, the less there is for the bank to loan. Banks regulate their reserves by changing the rate of interest on loans. If deposits are increasing more rapidly than loans, the latter may be stimulated by lowering the rate of interest and thus encouraging loans. In order that the proper relation between reserves and deposits may be maintained the assets of a bank must be as *fluid* as pos-

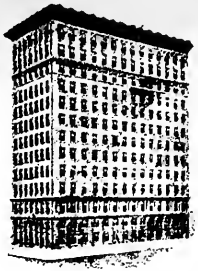
sible. Loans are usually made for thirty, sixty, or ninety days, so that obligations to the bank are daily coming due and a constant stream of funds is flowing into the bank.

Kinds of Banks.—There are many kinds of banks in the United States. National banks are organized under the terms of the National Banking Act. Each national bank must make a statement of its condition to the comptroller of the currency five times a year and must be examined as to its condition by the Federal bank examiners twice a year without notice being given of the time of examination. State banks are organized under state laws and are subject to examination by bank examiners of the state banking department.

State banks often have a trust department, in which case they are generally called trust companies. Trust companies, in addition to doing a general banking business, are authorized by law to act as trustees for estates, executors of wills, and to administer other trust funds. Savings-banks are organized under state laws and are especially designed to receive the deposits of those who can save in only small amounts. They are usually restricted to giving interest on sums less than $5,000 and do not, as a rule, allow checking accounts. The laws safe-guarding deposits in savings-banks are more strict than in other banks.

A considerable number of private banks exist in the United States. These are conducted by individuals or partnerships and are generally subject to examination by the state banking departments. Most private banks doing a commercial business are in small communities,

TERMINAL BUILDING



COR COURT AND JORALEMON STREETS

$ 1,000.00 Brooklyn, N.Y. City. June 9th, 1921

Thirty days after date I promise to pay to the order of Myself

One thousand Dollars

at The Nassau National Bank of Brooklyn

Value received

Due July 9th, 1921 Richard Roe

Wills, McDonald & Co.

$ 1,000.00 Brooklyn, N. Y. June 9, 1921

Thirty days after date Pay to the order of

Richard Roe

One thousand 100 Dollars

Value received and charge to account of

To John Doe

No. 16 Newkirk Ave, Newark N. J.

Richard Roe

31 Court St., Brooklyn. N.Y.

At the top of the page is a form for a promissory note. It must be indorsed on the back by another person in order to make it "two-name" paper.

Below is the form of a draft. Many business houses make sight drafts at monthly intervals upon their customers and then give them to a bank for collection.

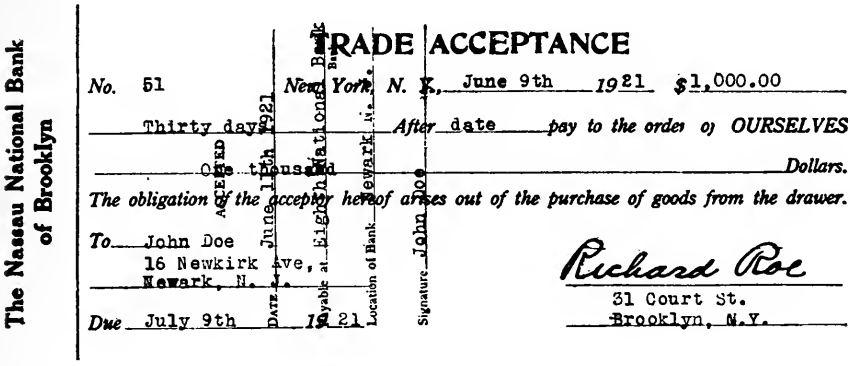
which have been long established and which do an extensive business, though most private banks in large cities do not engage in commercial banking, but confine themselves to dealing in stocks and bonds and foreign and domestic exchange.

What is Credit?—Credit may be defined as present purchasing power, transferred from lender to borrower. Some instruments of credit, like bank-notes and government notes, are virtually the same as money, but other instruments of credit, like promissory notes, checks, drafts, bills of exchange, and the like, cannot be classified as money, yet through their use many exchanges of goods and payments for services are made. There are in the United States more than $20,000,000,000 of bank deposits and less than one-fourth that amount in money. Through the exchange of bank deposits a vast number of transactions are effected. Depositors do not usually want money when they draw on their accounts; they want purchasing power, and this they can obtain in instruments of credit.

Promissory Notes.—A promissory note is a promise to pay a specified sum of money on demand or at some time stated in the note. Promissory notes may be "single-name" or "double-name" notes, depending on whether they are signed by one person or signed or indorsed by an additional person. Banks, as a rule, require two-name paper. The value of a promissory note depends on the debtor's willingness and ability to meet his obligations. Promissory notes may be given in exchange for goods. The holder of a promissory note may make it payable to another person and use it for paying his debts or may sell it to a bank or other dealer in credit.

Book-Accounts. — Book-accounts are records on the books of a creditor of goods or services bought on credit. Many goods are bought on thirty, sixty, or ninety days' credit. Book-accounts are not often sold, but are not infrequently used as security upon which to borrow money.

Acceptances.—Trade acceptances are drafts which have been made by the seller of goods upon the purchaser and



The Nassau National Bank of Brooklyn

TRADE ACCEPTANCE

No. 51 New York N. Y. June 9th 1921 $1,000.00

Thirty days after date pay to the order of OURSELVES

One thousand Dollars.

The obligation of the acceptor hereof arises out of the purchase of goods from the drawer.

To John Doe
16 Newkirk Ave,
Newark, N. J.

Due July 9th 1921

ACCEPTED June 11th 1921 Payable at Eighth National Bank Branch Location of Bank Newark, N. J. Signature John Doe

Richard Roe
31 Court St.
Brooklyn, N.Y.

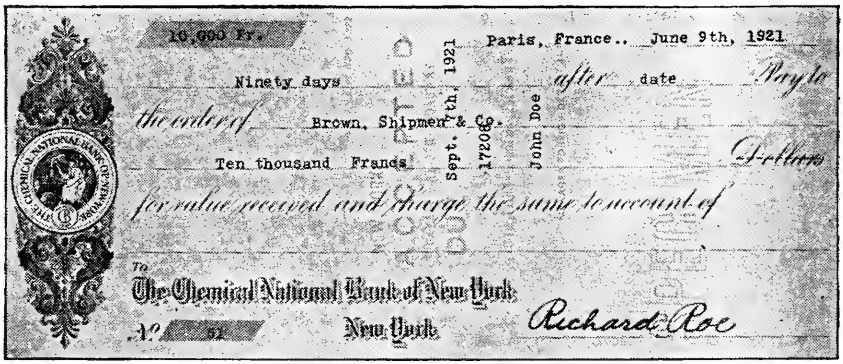
A trade acceptance is an obligation of the acceptor to pay. The drawer is secondarily responsible. A trade acceptance is therefore two-name commercial paper.

which he has agreed to pay. Acceptances have practically done away with book-accounts as instruments of credit. They are short-term instruments and are legal evidences of the debt. They can therefore be readily converted into cash, if accepted by responsible merchants, and are especially desirable as the Federal Reserve Banking Act permits Federal Reserve notes to be issued on approved short-time commercial paper.*

* Acceptances are described as follows in Ettinger and Golieb, *Credits and Collections*, pp. 20, 21.

"A domestic bill-of-exchange is commonly known as a commercial draft. It usually originates in the sale of goods, the seller ordering the purchaser to pay either himself or another who will collect. The payee of the draft,

Bonds.—Bonds are promises to pay a specified sum of money at some time in the future, usually ten years or more. They are used to secure capital needed for a term of years, while promissory notes are usually employed for short-term loans.


10,000 Fr.
Paris, France.. June 9th, 1921
Ninety days after date Pay to
the order of Brown, Shipment & Co.
Ten thousand Francs
Sept. 9th 1921
17200
John Doe
for value received and charge the same to account of
To The Chemical National Bank of New York
No. 51
New York
Richard Roe

A BANK ACCEPTANCE

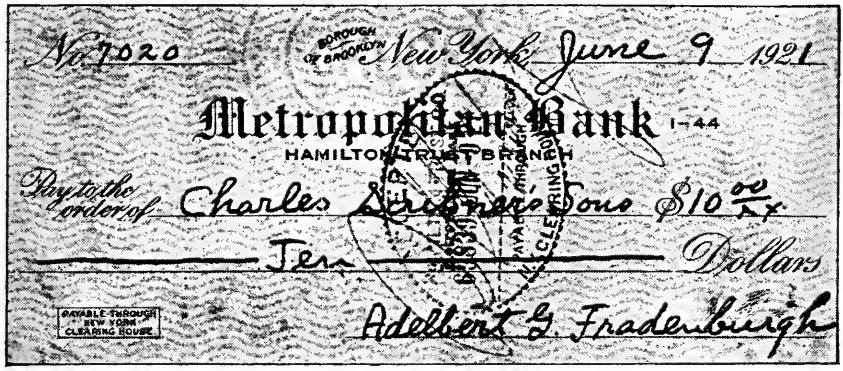
When "accepted" by the bank it becomes an obligation of the bank.

Checks.—A check may be defined as a written order upon a bank authorizing the payment of a specified sum of money to an individual or a corporation or to the bearer. A check may be drawn against a deposit of money or against a credit established in the bank. A majority of large payments are made by checks without the use of

if it is a demand draft, will cause it to be presented to the drawee, the person upon whom it is drawn, for payment. If the seller wishes to give the purchaser thirty or sixty days to pay, he will draw a draft payable at thirty or sixty days after sight or at some definite time in the future. The payee will then immediately cause the draft to be presented to the drawee, and the drawee will accept the draft by writing across the face of the draft 'accepted.' When the drawee 'accepts' the draft it becomes his promissory note and the drawer remains secondarily responsible as endorser. The accepted draft or, as it is called, the 'acceptance,' may then be sold to or discounted at a banking institution."

money. Thus *A* may owe *B* $100, *B* may owe *C* $100, and *C* may owe *D* $100. *A* gives his check for $100 to *B*, *B* draws a check for $100 in favor of *C*, and *C* pays *D* $100 by check. Assuming that all the accounts are in one bank, the entire series of payments is made without the use of money. *A's* account is reduced by $100 and *D's* is increased by $100. The other accounts balance one another, and the whole affair is merely a matter of changing book-accounts.

Certified Checks.—A certified check is one which a bank guarantees to pay. When a check is presented for cer-



This is a reproduction of a genuine certified check. As soon as a check is certified the bank guarantees payment.

tification to a bank upon which it is drawn, the official responsible for certification, usually the paying teller, must be sure that the check will not overdraw the account. As soon as a check is certified the account of the drawer is charged with the amount of the check and the bank becomes responsible for payment.

The Clearing-House System.—When the banking business of the United States was still in its infancy, checks

received by one bank which were drawn upon another were sent at the end of the banking day to the bank upon which they were drawn for payment. Two banks, each having checks drawn upon the other, could offset the checks held against each other, the balance only being paid in cash. A clearing-house is an institution established by banks whereby the accounts of each member bank against the others may be adjusted. If there were but two banks in the clearing-house, and each held checks of $10,000 against the other, settlement would be made by exchanging checks. If one held checks to the amount of $15,000 and the other to the amount of $10,000, accounts would be balanced by the latter bank paying the former $5,000.

When several banks are associated in a clearing-house balances are settled in much the same manner. Each bank sends to the clearing-house in separate packages checks drawn on the other member banks which it has paid. Checks offset checks and balances show the indebtedness of one bank to another.

Bills of Exchange and Drafts.—A bill of exchange is an order drawn by one person calling upon a second person to pay a specified sum of money to a third person. A bank draft is an order drawn by one bank upon another bank authorizing it to pay to a specified person a certain sum of money. Bills of exchange and drafts are used in making payments to persons living in different cities. They are commercial paper and may be transferred to others by indorsement.

The Use and Abuse of Credit.—Among the most conspicuous advantages of credit are the following:

1. It enables industrial and commercial enterprises to secure capital necessary for establishing and conducting business. Most business houses use their credit from time to time.

2. It enables banks to collect many comparatively small sums which could not be used to advantage by their owners and loan them for use in productive industry.

3. It puts capital into the hands of those who can use it.

4. It enables persons to borrow in order to prepare themselves for a useful career, or to tide over a misfortune.

Among the abuses of credit are the following:

1. It may be too freely used in speculation and result in a crisis. In the spring and early summer of 1920, loans were freely made for the purchase and storage of sugar. Speculators imagined that the price would reach thirty-five cents a pound in the autumn. The price did rise on account of an artificial shortage created by the speculators, but the high price caused large quantities of sugar to enter the United States and the price soon began to fall. The banks called in their loans and the speculators were obliged to sell at a loss on a falling market.

2. Credit may stimulate production in certain lines and lead to overproduction in these lines. This is especially true when the borrower has too little knowledge of the business to enable him to judge the chances of success. The candy business was entered in 1920 by many new firms financed by borrowing, which were not able to continue business when conditions became more normal.

3. Borrowing for consumption is often uneconomic. Borrowing to buy an automobile for pleasure purposes,

to purchase jewelry, or any consumption good that is not a necessity are examples of abuses of credit.

Summary.—Banks serve the public in many ways. The most important duties of banks are concerned with receiving and keeping of deposits, making of loans, discounting promissory notes, and issuing bank-notes. In the United States there are several kinds of banks. These include national banks, savings-banks, trust companies, state banks, and private banks. The chief business of banks is dealing in credit. Among the instruments of credit are checks, drafts, promissory notes, bonds, and trade acceptances. Clearing-houses are devices for settling balances between banks.

Business depends upon credit; without it there could be no business in the modern sense. Credit has many advantages. Among the more prominent are those mentioned in the text. But it should be remembered that there are disadvantages; credit is sometimes too freely used and business enterprises are started without a sufficient guarantee of success; credit too freely used in speculation may result in a panic; borrowing for consumption is often unwise.

TOPICS FOR DISCUSSION, DEBATE, AND SPECIAL REPORTS

1. Name every kind of bank that does business in your community. Show the difference between the various banks.
2. Get a copy of the most recently published statement of some bank. Show what each item means.
3. Why should banks have only "quick assets"? Which of the following are quick assets: real estate, government bonds, stock in an oil company, notes due in one year, demand notes?

4. Find out to what extent trade acceptances are used in your community.
5. Describe the business of a clearing-house. Is there a clearing-house in your city? If not, how do banks settle their balances in dealing with one another?
6. Would it be economic to borrow money to go to college? To pay a doctor's bill? To pay a premium on an insurance policy? To take a vacation in the country? To buy a diamond ring?
7. Would it ever be economic to mortgage a house in order to obtain money for the purchase of an automobile for pleasure?
8. Some stores endeavor to secure a large number of patrons with charge accounts. Why do they do this? What are the advantages and disadvantages of charge accounts to purchasers?

CHAPTER XX

INDUSTRIAL DEPRESSIONS AND CRISES

A close relationship exists between financial crises and industrial depressions. Some economists consider them as two aspects of the same thing. A crisis is generally followed by an industrial depression. In the United States there were financial crises in 1818, 1825, 1837, 1847, 1857, 1873, 1875, 1884, 1893, and 1903. Financial crises have generally occurred about once in ten years. This fact led the English economist Jevons to associate crises and industrial depressions with sun-spots. The larger sun-spots occur at intervals of about ten years, and Jevons maintained that they influenced the climate and rainfall on the earth and so acted unfavorably upon agriculture. The theory of the influence of sun-spots upon the productivity of agriculture is not without some plausibility, but the sun-spot theory has few advocates, and crises have often occurred when the crops were good. They have also occurred in years that did not meet the ten-year interval, such as in 1869 and 1907.

True Explanation of Regular Occurrence of Crises.— There seems to be a regular cycle from good times to industrial depressions, then a slow recovery followed by prosperity after which the cycle is repeated. Good times are said to contain the seed of their own destruction. When times are prosperous a feeling of optimism prevails;

people buy freely and prices rise. The banks have abundant funds and loans are not difficult to secure. Established industries increase their capacity and new industries are established, many of them without sufficient working capital. The process cannot, however, continue forever. Some business concerns begin to find difficulty in selling their goods. The banks begin to increase rates on loans and discounts, money is hard to get and confidence is shaken. Some of the weaker concerns fail and soon all begin to retrench.

Overproduction and Crises.—General overproduction is impossible, as it would imply that there are more goods of all kinds than the people can consume, but overproduction of one product is not uncommon. For example, there was overproduction of railroads immediately after the Civil War. The railroads could not yield any profits until the country had grown large enough in population and industries to support them, and in the meantime those who had financed the railroads suffered. When the railroads were being built optimism prevailed. There was a wild speculation in railroad securities and other essential industries were neglected.

The industrial fabric is like a house of cards. A collapse in one place may result in the whole structure falling. When there is overproduction of some commodity or service, the producer cannot sell at a price sufficient to carry on his business. Failure or temporary embarrassment is inevitable, and if the industry should be a sufficiently large one it will drag others into insolvency and will affect the banks from which it may have borrowed funds. Under the present industrial system depressions will occur from time

to time. A crisis naturally extends from one country to another. Some crises have been world-wide, others have been confined to one country. Frequently a crisis has a local cause, like the bank failures in North Dakota in 1921.

Crises can be rendered less serious by conservative banking and by business houses preparing for possible times of depression in their days of prosperity.

Crop Failures and Crises.—The failure of an important crop, such as cotton in the Gulf States or wheat in the Northwest, is the cause of a local depression, which may extend over the whole country. Banks lend to the farmers. If the crops fail, the farmer cannot pay his debts. The failure of an important crop has its effects upon the railroads and upon many industries. If the farmers have no revenue, they cannot buy machinery and other supplies.

The Relation of Middlemen to Crises.—Professor Taussig, in his *Principles of Economics*, vol. I, pp. 405–406, calls attention to the part played by the distributing middlemen—the wholesalers and jobbers and retailers—in reference to crises:

"These constitute the immediate purchasing public for the 'producers.' When they buy freely, business is brisk; when they hold off, business is dull. They are not only subject to the psychological contagion; they are also moved by very simple calculations of profit and loss. Their operations are almost exclusively in the simple purchase and sale of goods, and their success depends almost solely on prices. They buy freely when they think that prices will rise, and cut down purchases when they think that prices will fall. The very fact that they so think, and accordingly act, accelerates the fall in the other. During

an up-swing period, they add to their stocks, thinking to sell them at an advance, or at least to protect themselves against a later rise in the prices of what they buy.

"Then comes the shock—a bad failure, a financial panic. They jump to the conclusion that 'things are going down,' countermand old orders as far as possible, give new ones, live from hand to mouth in their purchases and sales, and wait until they think that prices have touched bottom. Sooner or later a good crop, the unexpected profitableness of some new venture, a turn in foreign trade, some such event gives the start to a new upward movement. The middlemen reach the conclusion that it is time to buy again, and to take advantage of low prices. Business becomes more active, optimism returns. Prices go up, and quickly, because all the dealers now think that they will go up, and buy in consequence. There is thus an accumulation of extra stocks in their hands in times of rising prices, and a depletion in times of low prices; some really increased flow to consumers at the one stage, some really lessened flow at the other; but also an alternate excess and deficiency of the supplies held in the middlemen's reservoir."

The Banks and Crises.—In times of business depression the banks are confronted with a difficult situation. Business houses desire loans because they cannot market their goods to advantage. They do not usually want cash, but desire credit or assurance that they will be taken care of if necessity should arise. Good banking demands that legitimate enterprises should receive all the support that a bank can wisely give.

But another difficulty is apt to arise. Depositors want

their money. A vague distrust often, without reason, is enough to start a run on a bank. A rumor spreads that a bank is in trouble. Crowds of depositors assemble from all quarters and form long lines in front of the paying teller's window. They are panic-stricken with the fear that they will not get their money. Let confidence be restored and the run on the bank ceases. Experience has taught that large amounts of cash lying on the desk of the paying teller will satisfy many that their fear was without reason and they will go home.

Banks have an interest in sustaining each other. A failure of one bank is sure to embarrass some other bank. Under the Federal Reserve system it is not difficult for a member bank which is financially sound to secure cash when needed. It merely has to send securities to the Federal Reserve Bank of its section and get cash for them.

A clearing-house may aid member banks, as has been done repeatedly in New York. In the crisis of 1907 the banks of New York sustained banks which had done a sound, conservative banking business, but allowed others to fail because they had engaged in reckless banking. In that same crisis many sound banks did not have at hand sufficient cash to meet the demands of depositors and restricted withdrawals to small amounts. Such a procedure was unusual, but pardonable. It need not occur under the Federal Reserve banking system as previously explained.* One reason for increased demands for cash in time of panic is that confidence in checks and other instruments of credit is shaken. People wish "real money" and are inclined to accept nothing else.

* See pages 207–210.

In time of panic the banks see their deposits diminishing and the demand for loans increasing. They can secure cash for meeting the demands of insistent depositors by selling some of their securities or by discounting some of their commercial paper. Loans may be discouraged by raising rates of interest. This will result in discouraging any one from borrowing, unless he really needs the money and is willing to pay for it.

Summary.—Industrial depressions and crises are closely related. Industrial depressions come when goods cannot be sold at a profit. Business houses restrict their output and hard times result. It has been observed that depressions come in cycles of about ten years. Prosperity leads to overexpansion and overspeculation and these bring on a depression. Though overproduction of all goods is impossible, there may be overproduction of one product; in this case it is impossible to sell the product at prices which will pay for its production and a business depression comes to producers of that article. This may involve others. Crop failures may result in a depression, which may cause a financial crisis. Financial crises are the result of a collapse in credit and make money scarce. In time of crises banks are in need of money and so they raise rates of interest in order to discourage loans. To secure additional money they sell securities and discount commercial paper. These are not profitable transactions in time of depression. The Federal Reserve banking system furnishes a means for member banks getting money in time of need.

TOPICS FOR DISCUSSION, DEBATE, AND SPECIAL REPORTS

1. What goods have you known to sell at less than the cost of production? What was the cause and the result?
2. Give an account of some speculation in real estate in your vicinity. What were its results?
3. What was Black Friday? References: Any of the larger histories of the United States covering the period since the Civil War.
4. Give an account of the crisis of 1893. Reference: Same as above.
5. Are the present times prosperous or the reverse? What is the outlook for the future?
6. How may the Federal Reserve Banks prevent or lessen the severity of a panic?
7. Why are prices low in time of panic?

CHAPTER XXI

INTERNATIONAL TRADE

Nature of International Trade.—Trade between nations does not differ essentially from trade between different parts of the same nation. Goods are made where they can be produced to the greatest advantage. Oranges are grown in California and in Florida and shipped to the east and north. Shoes are made in New England and New York and shipped to California and Florida. Each section profits by doing what is best suited to it. Likewise Italy and Spain grow fruits for northern Europe and in return import manufactured articles. Brazil sends coffee to the United States and imports automobiles.

It does not necessarily follow that a country will send out only articles which it can produce more cheaply than the country with which it is trading.

For example: Country *A* produces iron at a cost of twenty dollars per ton and coal at a cost of five dollars per ton. Country *B* produces iron at a cost of eighteen dollars per ton and coal at a cost of two dollars per ton. Under these circumstances in Country *A* four tons of coal are equal in value to one ton of iron, but in Country *B* nine tons of coal are equal in value to one ton of iron. It will clearly be profitable for Country *B* to export coal and import iron, although it can produce each more cheaply

than Country *A*. This is the same principle which makes it uneconomic for a man who is a good architect and also a good carpenter to shingle his own house, although he may do the work as effectively as the man whom he employs.

The Foreign Trade of the United States.—The trade of the United States with foreign countries is large and constantly growing. Our domestic trade is vastly more important yet the foreign commerce has attracted more attention because of having been a political issue. The chief imports of the United States are coffee, sugar, manufactured goods, crude rubber, and gutta-percha. The following table shows the values and duties of imported merchandise entered for consumption during the years ending June 30:

VALUES

	Free	Dutiable	Total	Per Cent Free
	Dollars	Dollars	Dollars	
1908.....	525,704,745	657,415,920	1,183,120,665	44.43
1909.....	599,375,868	682,265,867	1,281,641,735	46.77
1910.....	761,353,117	785,756,020	1,547,109,137	49.21
1911.....	776,963,955	750,981,697	1,527,945,652	50.85
1912.....	881,512,987	759,209,915	1,640,722,902	53.73
1913.....	986,972,333	779,717,079	1,766,689,412	55.87
1914.....	1,152,392,059	754,008,335	1,906,400,394	60.45
1915.....	1,032,863,558	615,522,722	1,648,386,280	62.66
1916.....	1,495,881,357	683,153,244	2,179,034,601	68.65
1917.....	1,852,530,536	814,689,485	2,667,220,021	69.46
1918.....	2,117,555,366	747,338,621	2,864,893,987	73.91

The principal exports of the United States are given in the following tables. It will be noted that the chief exports are no longer food products:

Year Ending June 30—	Crude Materials for Use in Manufacturing		Foodstuffs in Crude Condition, and Food Animals		Foodstuffs Partly or Wholly Prepared	
	Value in Dollars	Per Cent	Value in Dollars	Per Cent	Value in Dollars	Per Cent
1908.....	556,681,462	30.34	189,051,824	10.30	331,961,663	18.10
1909.....	520,907,436	31.80	135,693,409	8.28	302,555,341	18.47
1910.....	565,934,957	33.10	109 828,320	6.42	259,259,654	15.16
1911.....	713,018,206	35.41	103,401,553	5.13	282,016,883	14.01
1912.....	723,008,839	33.31	99,899,270	4.60	318,838,493	14.69
1913.....	731,758,513	30.13	181,907,266	7.49	321,204,373	13.23
1914.....	792,716,109	34.03	137,495,121	5.90	293,218,336	12.59
1915.....	510,455,540	18.80	506,993,179	18.66	454,575,404	16.74
1916.....	535,952,043	12.55	380,638,102	8.91	599,059,151	14.02
1917.....	731,990,339	11.76	531,866,009	8.54	737,795,334	11.85
1918.....	897,324,082	15.37	374,978,216	6.42	1,153,702,460	19.76

Year Ending June 30—	Manufactures for Further Use in Manufacturing		Manufactures Ready for Consumption		Miscellaneous		Total Value
	Value	Per Cent	Value	Per Cent	Value	Per Cent	
1908....	261,105,883	14.23	489,469,958	26.68	6,515,567	.35	1,834,786,357
1909....	231,144,267	14.11	440,271,747	26.87	7,783,393	.47	1,638,355,593
1910....	267,765,916	15.66	499,215,329	29.19	8,079,822	.47	1,710,083,998
1911....	309,151,989	15.35	598,367,852	29.72	7,592,542	.38	2,013,549,025
1912....	348,149,524	16.04	672,268,163	30.98	8,155,539	.38	2,170,319,828
1913....	408,806,949	16.83	776,297,360	31.97	8,531,897	.35	2,428,506,358
1914....	374,224,210	16.06	724,908,000	31.11	7,122,249	.31	2,329,684,025
1915....	355,862,329	13.10	807,465,511	29.73	80,826,502	2.97	2,716,178,465
1916....	657,923,305	15.40	1,998,298,249	46.77	100,306,729	2.35	4,272,177,579
1917....	1,191,262,523	19.13	2,942,577,415	47.25	91,672,430	1.47	6,227,164,050
1918....	1,201,439,423	20.58	2,185,420,221	37.43	25,787,655	.44	5,838,652,057

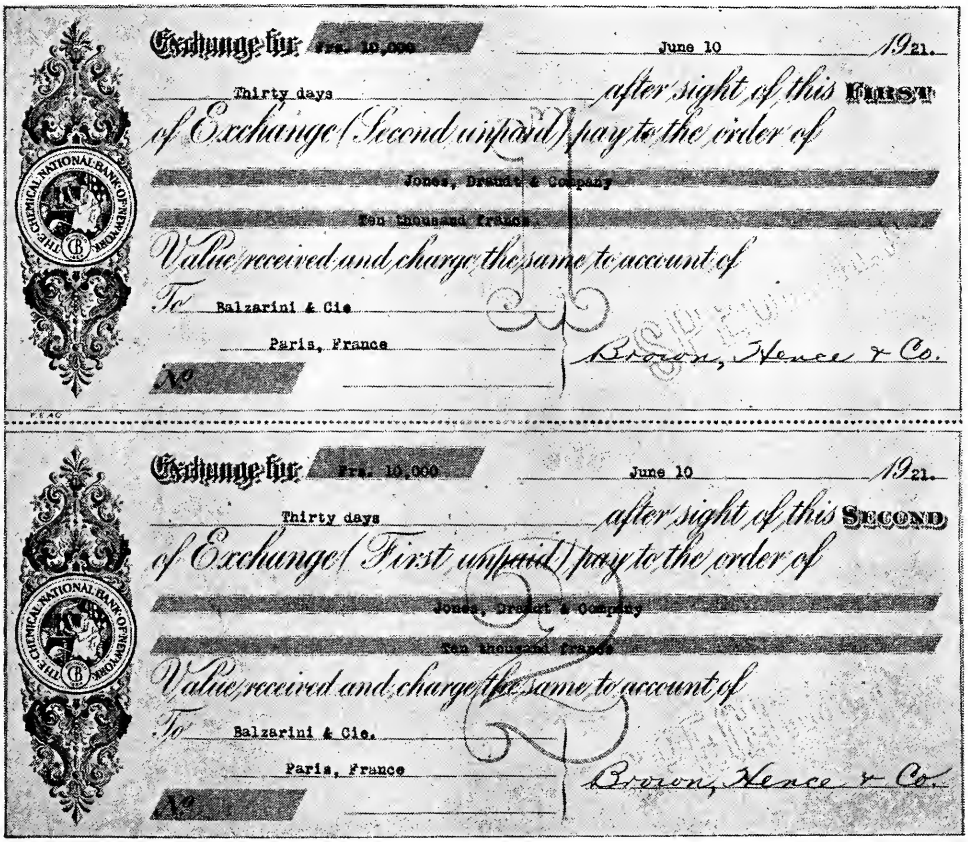
Balance of Trade.—A country which exports in value a greater quantity than it imports is said to have a favorable balance of trade. It was once thought that a favorable balance of trade was always good for a country but economists have shown the fallacy of this. Exports for

the most part pay for imports, differences in value only being paid by shipments of money. It may happen that a country has a favorable balance of trade and this favorable balance merely pays the interest on debts which are owed to people residing in other countries. Egypt has a favorable balance of trade, but it owes so much to other countries that the difference between values of exports and imports goes to pay its debts. England brings in more than she sends out. However, she does not have to pay money for the excess. Profits on her investments abroad, interest upon money lent to foreign borrowers and earnings of British ships account for the excess of imports over exports.

If two countries trade with each other and each has a gold monetary standard with no great difference in their international debts, exports of gold will pay differences in the balance of trade. Continued imports of money into a country will cause prices to rise and purchases by foreigners will decrease until the favorable balance is destroyed. If money leaves a country on account of an unfavorable balance of trade, prices will fall and exports will be encouraged. These forces will tend to make exports and imports balance, when the circumstances are as given.

Payment of International Obligations.—Most international debts are settled, not by the shipment of money, but by drafts or bills of exchange. A person in New York who wishes to pay for goods bought in London will go to a banker or broker and buy a draft on London. The price of bills of exchange varies with demand and supply. If many merchants in London desire bills of exchange on

New York and few have accounts payable in New York, the price will rise. In normal times the English pound sterling is worth $4.866 in United States money. The


Exchange for Frs. 10,000 June 10 1921.
Thirty days after sight of this FIRST
of Exchange (Second unpaid) pay to the order of
Jones, Drexel & Company
Ten thousand francs
Value received and charge the same to account of
To Balzarini & Cie
Paris, France
No
Brown, Hence & Co.
THE CHEMICAL NATIONAL BANK OF NEW YORK
Exchange for Frs. 10,000 June 10 1921.
Thirty days after sight of this SECOND
of Exchange (First unpaid) pay to the order of
Jones, Drexel & Company
Ten thousand francs
Value received and charge the same to account of
To Balzarini & Cie.
Paris, France
No.
Brown, Hence & Co.
THE CHEMICAL NATIONAL BANK OF NEW YORK

A FOREIGN BILL OF EXCHANGE

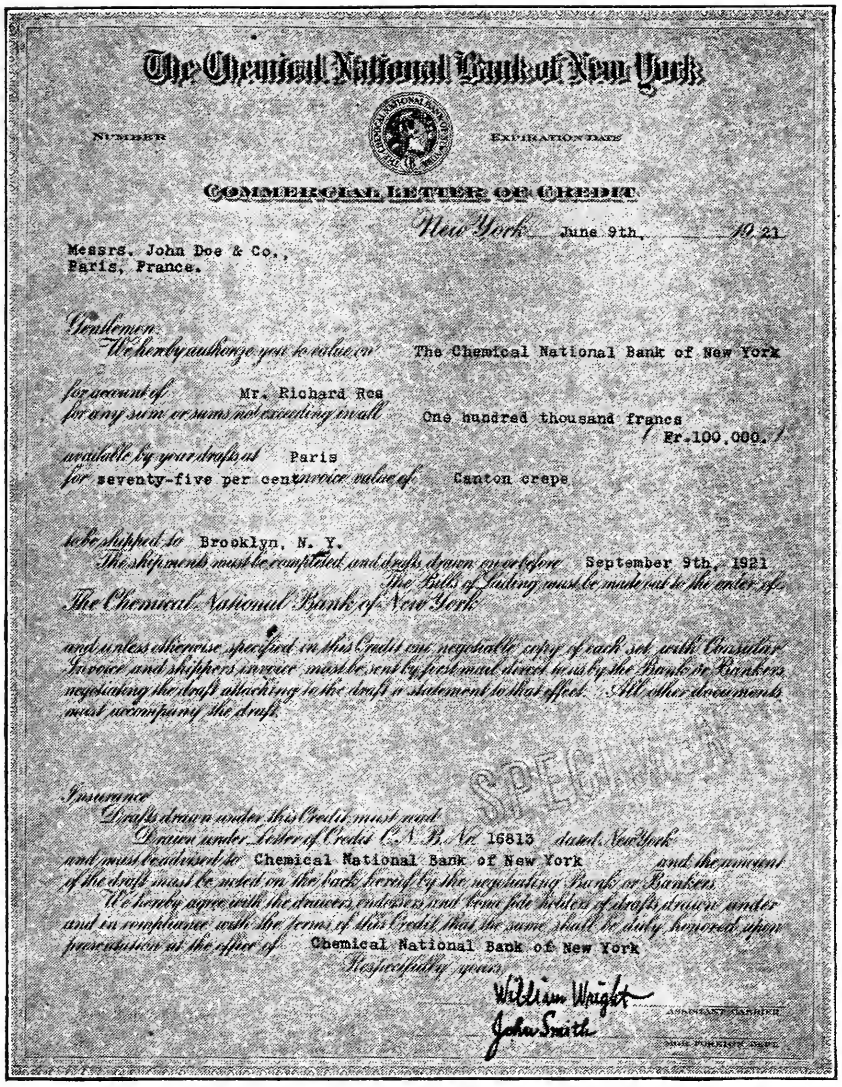
Bills of exchange are issued in duplicate and each part sent by different boat. When one part is paid the other becomes valueless. Bills of exchange may be purchased from large American banks payable in the leading cities of the world.

expense of shipping $4.866 in gold to London is normally less than .03, so if exchange were more than $4.896 it would pay to ship gold rather than purchase a bill of exchange.

The currency of all the great countries has been inflated as a result of the war, and this, together with great loans made to European powers, used chiefly to purchase supplies in America, and a balance of trade throughout the war in favor of America, has made foreign exchange abnormal during recent years. Shipments of gold to America were made from time to time during the war, but, on account of the tremendous demand for American goods in Europe, exchange continued in favor of the United States. The former rates of exchange will tend to be restored as the European countries restore their currency to a gold basis and as industries in Europe recover from the effects of war.

The rate of sterling, or English exchange, depends to a large degree upon prices in America as compared with prices in England. Falling prices in America attract European customers and add to the demand for exchange on New York. Rising prices here check demands for New York exchange in London and add to demands from America for goods of foreign origin. Rates of interest in New York, as compared to those in London, also affect rates of exchange. When money is more in demand in New York than in London, sterling exchange tends to rise. Many obligations in countries other than England are settled by sterling exchange.

For example, the large export trade in coffee from Brazil to the United States results in a favorable balance of trade for Brazil, but Brazil has a constant demand for exchange on London. The New York coffee importer pays for his purchases by sending an order on London to Brazil and this is readily sold in Brazil. This is often called a three-



The Chemical National Bank of New York

NUMBER EXPIRATION DATE

COMMERCIAL LETTER OF CREDIT

New York June 9th, 19 21

Messrs. John Doe & Co.,
Paris, France.

Gentlemen:
We hereby authorize you to value on The Chemical National Bank of New York
for account of Mr. Richard Roe
for any sum or sums not exceeding in all One hundred thousand francs
Fr.100,000.
available by your drafts at Paris
for seventy-five per cent invoice value of Canton crepe

to be shipped to Brooklyn, N. Y.
The shipments must be completed and drafts drawn on or before September 9th, 1921
The Bills of Lading must be made out to the order of
The Chemical National Bank of New York

and unless otherwise specified in this Credit one negotiable copy of each set with Consular Invoice and shippers invoice must be sent by first mail direct to us by the Bank or Bankers negotiating the draft attaching to the draft a statement to that effect. All other documents must accompany the draft.

SPECIMEN

Insurance
Drafts drawn under this Credit must read
Drawn under Letter of Credit C. N. B. No. 16813 dated New York
and must be endorsed to Chemical National Bank of New York and the number of the draft must be noted on the back hereof by the negotiating Bank or Bankers.
We hereby agree with the drawers, endorsers and bona fide holders of drafts drawn under and in compliance with the terms of this Credit that the same shall be duly honored upon presentation at the office of Chemical National Bank of New York
Respectfully yours,

William Wright ASSISTANT CASHIER
John Smith AUTHORIZED SIGNATURE

A COMMERCIAL LETTER OF CREDIT

cornered exchange. The extensive system of English banks throughout the world and the large commercial interests of English houses in every large port in the world have given a ready demand for sterling exchange in all countries. "Dollar exchange," or exchange sold on American banks, has become more common as a result of the war. Branches of American banks are now to be found in many parts of the world, and the great demand for American goods has given rise to increased use of "dollar exchange."

The Edge Act and the Webb-Pomerene Act.—Credits for commercial purposes in the United States are seldom made for more than ninety days. Credits in South America are often made for a year, and in the devastated regions of Europe payments for goods are made in securities that run for a term of years. Under the Federal Reserve Act and state banking acts, the American exporter could not accept such payments, as they could not be sold to bankers and he could not carry them himself, as it would tie up his operating capital. Now the Edge Act permits international banks, organized in accordance with its provisions, to deal in just this kind of securities. An exporter of American goods can now sell his goods and receive in payment a note due in one year. This note he can take to an Edge law bank and receive his money within two weeks.

The Edge Act is designed to aid in financing the foreign trade of the United States; so the Webb-Pomerene Act seeks to put American exporters on a par with foreign exporters. In seeking foreign trade the Webb-Pomerene Act permits American exporters to combine. Though the

Sherman Act prohibits domestic combinations in restraint of trade, the Webb-Pomerene Act authorizes combinations of exporters. This is necessary if the United States is to have her share in the foreign markets. Foreign competitors of American trading companies have formed combinations for mutual benefit; this is especially true of the Germans.

There are two ways in which exporters may organize to take advantage of the opportunities afforded by the Webb-Pomerene Act.

1. Competing manufacturers may form stock companies to handle their foreign business. All matters relating to their foreign trade, including sales, credits, and advertising, are managed by these stock companies.

2. Manufacturers and exporters may form associations for the purpose of agreeing upon a foreign policy. The object of these associations is to avoid competition among themselves and offer effective competition to foreign manufacturers and exporters.

Summary.—Foreign trade is similar to domestic trade in that each party to an exchange may benefit. The foreign trade of the United States is large, but not as compared to our domestic trade. A favorable balance of trade is not necessarily good for a country. International debts are usually paid by bills of exchange. Exchange on London is called sterling exchange and is used in settling debts owed in various parts of the world. The Edge Act makes it possible for American exporters to grant long-time credits and has resulted in the increased use of dollar exchange. The Webb-Pomerene Act permits American

companies to form associations through which they may co-operate for the increase of foreign trade.

TOPICS FOR DISCUSSION, DEBATE, AND SPECIAL REPORTS

1. Is foreign trade or domestic trade more beneficial to a country? Some say that there is only one profit in foreign trade and two in domestic trade. What do you think?
2. Would a favorable balance of trade be good for Germany? For England? Why?
3. Find from the financial column of a newspaper the present quotations of an English pound, an Italian lira, a French franc. Are these quotations normal? Explain the causes for any abnormal rates.
4. With what foreign nations does your city have trade relations? What are the leading exports and imports?
5. Do you look with favor on the Webb-Pomerene Act? Why not permit like combinations in the domestic market?

CHAPTER XXII

RESTRICTIONS ON INTERNATIONAL TRADE

Tariffs.—Tariffs are duties or taxes on imports. Duties on imports are of three kinds: (1) Tariffs for revenue only, (2) tariffs primarily for revenue but with incidental protection, (3) protective tariffs.

A tariff for revenue only may be levied on goods produced outside the country and with which home products do not come in competition. An import duty on tea or coffee would be an example, or a tariff might be for revenue only if collected upon imported articles provided a similar tax be placed upon goods of the same kind produced within the country. For example, a tariff of two cents an ounce might be collected at the port on imported tobacco and an internal revenue tax of the same amount be levied upon domestic tobacco.

A tariff which gives slight protection to the domestic producer but is chiefly for revenue is known as a tariff for revenue with incidental protection. For example, a tariff of 10 per cent on the value of wool imported into this country would produce a large revenue and give slight protection.

A protective tariff is chiefly designed to protect American products from foreign competition. To do this the tariff must be high enough to raise the price of the imported article to the American consumer.

The Infant-Industries Argument.—The chief argument in favor of a protective tariff is the infant-industries argument. A protective tariff may encourage industries for which the country is well suited, but which cannot be started without some protection against the competition of foreign manufacturers. Advocates of a tariff of this kind acknowledge that prices will be increased and that capital will be induced to go into the new industry which might, without the tariff, be more profitably employed in some other industry. They maintain that the ultimate result will justify the immediate sacrifice. The new industry will grow under the sheltering wing of protection until it becomes able to take care of itself. For example, at one time American lace could not be produced in competition with foreign lace. A high protective tariff was imposed and American manufacturers turned their attention to the making of lace, with the result that the industry became established.

There is much to be said in favor of protection for infant industries. Such protection is a temporary expedient. When the industry is well established, the protection may be removed. If the industry does not, after a time, become established, we may assume that the country is not well suited for this industry and the tariff should be removed. The difficulty in putting this theory into practice is that protected industries never reach the point when they regard themselves as able to get along without protection.

The Home-Market Argument.—In the early days of American protective tariffs, Henry Clay applied the home-market theory with great effect. Manufactures, he said,

lead to the growth of cities. The farmer should have a home market for his produce, and should be spared the expense of long transportation. Moreover, the home cities would give him a market which could not be closed in time of war. This argument once had some force. Now that the home market has been created, some students think that the cities have been overdeveloped at the expense of the country.

The War Argument.—Those who favor protection argue that, as a war-protective measure, this country should be made independent of other countries. We may take as an example the dependence of the United States upon the dyes of Germany in 1914. Not only were we without adequate dyes, but by-products of the dye industry are necessary to the making of high explosives. This was a serious handicap to the United States when it prepared to enter the war. Much is to be said in favor of such a policy in regard to a few industries at least until the world becomes sufficiently civilized to dispense with wars.

Closely akin to this argument is the one that a country cannot allow industries which were established during a war to perish by foreign competition. This argument has been raised in the United States after every great war and the demands, at least in part, have always been granted.

The Tariff and Wages.—We often hear the argument that the American working man has a higher standard of living than is prevalent in other countries and that therefore American employers of labor must receive higher prices for their products in order to pay higher wages. To the free trader this argument appears to be a fallacy. American wages are higher because the American laborer is

a better producer than most foreigners. American iron and steel products, for example, compete in prices and quality with those produced elsewhere in such markets as those of South America, China, and Manchuria. The American working man is better paid, but the labor cost is no greater. England is nearer being a free-trade country than any other great country of the world, yet wages in England have always been higher than in Germany, which for years has had a high protective tariff. An employer can afford to pay good wages, whether the tariff is high or low, if the employee produces enough to justify it. We should not forget that the laborer is a consumer and that whatever increases his cost of living affects unfavorably the buying power of his wages.

Most American workmen do not work in industries which are protected. Among the unprotected laborers are those in the building trades, most farmers, all railroad employees, firemen, policemen, domestic servants, porters, truckmen, and most factory laborers. Their wages are equal to the wages of the minority who work in factories having some benefit from the protective tariff.

The Anti-Dumping Argument.—By dumping is meant the shipping of a surplus which cannot be sold at home at a profit to another country and selling this surplus for what it will bring. By this means prices are kept at a paying level in the home market. For example, English manufacturers of razors might find themselves with a surplus which could not be sold at a profit. They do not wish to hold them in stock and so send them to Brazil and sell them at any price they can get.

A protective tariff does not prevent dumping, though

it makes it less common. Dumping is resorted to from time to time by manufacturers in all countries, our own included.

A Protective Tariff Invites Retaliatory Tariffs.—If any country adopts a policy of protection it may expect other countries to retaliate. American protective tariffs on some of the agricultural products of Canada resulted in Canadian retaliation. America lost a market for some of her goods when she closed her markets to Canada by protective tariffs. If all countries have protective tariffs the advantage to any one vanishes.

The Protective Tariff and Monopolies.—The free trader sometimes says that "the tariff is the mother of the trusts." The statement is not true because most monopolies are in industries not aided by the tariff. However, a protective tariff may encourage combinations among producers. If a protective tariff is placed upon some article, the producers of that article are encouraged to combine in an association with the object of raising the price to a point just below that which will enable the foreign producer to enter the field. For example, if watches of a certain grade can be produced in the United States to sell at fifty dollars each and the foreign producer can make them to sell at forty dollars, a protective tariff of 50 per cent ad valorem would bar out the foreign product. But the domestic producers would then have an inducement to combine and raise the price to a point just below what would permit the foreign producer to market his watches in America, knowing that at that price they would have the market to themselves.

Sometimes articles of American manufacture can be bought more cheaply abroad than in the United States.

This is occasionally the result of the American producer "dumping" his surplus goods abroad, but it is more often because the manufacturers have the monopoly of the goods in question and may charge a monopoly price, but they compete with foreign producers abroad and make a profit on their foreign sales. When such a condition exists, it proves that a protective tariff is not necessary or desirable in the industry concerned.

Who Pays the Tariff?—Ordinarily the consumer of a protected article pays the tax. The tax is originally paid by the importer who shifts it to the wholesaler and he in turn shifts it to the retailer. For example, an overcoat valued at twenty-five dollars at the custom-house would cost the importer $37.50 if a tariff of 50 per cent ad valorem were collected. He sells it to the wholesaler for $37.50 plus his profit, and so it goes until it reaches the consumer, who pays all expenses.

However, this is not always the case. Sometimes the foreign producer pays the tax. If the foreign producer can still get a profit after reducing his price by the amount of the tariff, he may be inclined to do so. When England put a tax on the importation of American automobiles, the manufacturer of a popular-priced American car reduced the price in England by the amount of the tax.

Protection Seldom Increases the Total Industries of a Country.—Usually a protective tariff merely shifts capital from one industry to another. For example, if a high protective duty is placed upon a certain article which up to this time has chiefly been imported, capital is encouraged to invest in a plant for the making of that article rather than to seek employment in some of the established indus-

tries of the country. Capital always seeks employment and goes to those industries that promise the largest returns.

There are, however, cases in which a protective tariff actually adds to the industries of a country. The Canadian protective tariff resulted in several American manufacturers building factories in Canada to produce goods for the Canadian markets. English manufacturers have in a like manner established branch factories in the United States.

Conclusion.—It seems that the importance of the tariff has been greatly exaggerated because of its having been a political issue. The United States has prospered under high tariffs and under low tariffs. England has flourished under free trade and Germany under protection.

Once the industries of the United States become accustomed to a certain tariff, the abundant resources of the country and the productive capacity of the people are sure to bring prosperity under normal conditions. "Tariff tinkering," as frequent changes in the tariff are called, slows up industry because it creates uncertainty and unrest. To have a policy and keep to it for a term of years is better than shifting from one plan to another.

Summary.—Tariffs are of three kinds: (1) Tariffs for revenue only, (2) tariffs primarily for revenue but with incidental protection, (3) tariffs primarily for protection. The importance of the tariff has been exaggerated. The United States has been prosperous under various tariffs. Germany prospered with protection and England with free trade. The leading arguments for a protective tariff are: The infant-industries argument, the home-market argu-

ment, the war argument, and the wages argument. Of these the infant-industry argument has the most force. Protective tariffs invite retaliation by other countries. A protective tariff may promote monopoly. The duties collected at the port are, as a rule, shifted to the consumer in the form of higher prices. A protective tariff seldom increases the total industries of a country.

TOPICS FOR DISCUSSION, DEBATE, AND SPECIAL REPORTS

1. What are the effects of dumping upon the consumer? Upon the home manufacturer?
2. What do you consider the strongest argument in favor of protection? In favor of free trade? Why?
3. Some countries give bounties to encourage home producers. How do bounties differ from protective tariffs in their influence upon prices? Bounties on exports have been given by some countries. This would stimulate the export trade. Would it mean the taxing of the people of one country in order that the people of another country might enjoy cheap goods?
4. Show why "tariff tinkering" injures business.
5. Has the time come when the United States should abandon protection? References in favor of free trade: Taussig, *Tariff History of the United States;* Ashley, *The Tariff Problem;* Henry George, *Protection or Free Trade;* Ely, *Problems of To-day*, pp. 1–86.

   References in favor of protection: Gunton, *Social Economics*, pp. 320–361; Patten, *Economic Basis of Protection;* Stanwood, *American Tariff Controversies.*

   General references: Carver, *Principles of Political Economy*, chaps. XXVIII, XXIX; Ely, *Outlines of Economics*, pp. 368–382; Hadley, *Economics*, pp. 421–445; Taussig,

Principles of Economics, chaps. XXXVI, XXXVII; Mill, *Principles of Political Economy*, book III, chaps. XVII–XXI.

6. During the Great War many plants for the manufacture of chemicals were established in the United States and millions of dollars invested in them. When the war was over the American producers claimed—and the claim was sound—that unless they were given protection the German manufacturers would undersell them in America and force them out of business. Was it a wise policy to grant their demands?

CHAPTER XXIII

MONOPOLIES

Definition of Monopoly.—Monopoly is the absence of effective competition. It is characterized by ability to fix prices. Mere size does not constitute monopoly. The great department stores in our cities compete with one another fully as energetically as the small dealers.

It is not necessary that a monopoly should have complete control of the supply. It may fix prices of an article if it controls a large proportion of the supply. The Standard Oil Company has never been the only company engaged in any part of the oil business, yet, because it has controlled from 80 to 90 per cent of the supply of petroleum products, it has been able to fix prices.

Monopoly Prices.—Monopoly price is the price that yields the largest profits. This price will vary from time to time. The street railroads are monopolies in almost all American cities. A few years ago a five-cent fare was almost universal; even where such a rate was not fixed by law it was in force because such a fare was most profitable to the corporation. Since the war a five-cent fare no longer yields the largest net return and in some places results in a loss. Hence there has come a demand for a higher fare by the street-railroad corporations.

Under the conditions given in the following table a five-cent fare would result in the largest profits, but conditions may change. Labor might become more expensive. Supplies

ILLUSTRATION OF THE LAW OF MONOPOLY PRICE

Street Railroad Fares	Number of Passengers	Gross Income	Fixed Charges	Operating Expenses	Net Income
10 cents.....	500,000	$50,000	$25,000	$15,000	$10,000
8 "	800,000	64,000	25,000	16,000	23,000
7 "	1,000,000	70,000	25,000	17,000	28,000
6 "	1,400,000	84,000	25,000	19,000	40,000
5 "	2,000,000	100,000	25,000	22,000	53,000
4 "	2,100,000	84,000	25,000	22,000	37,000

of all kinds might rise in price and even the fixed charges might become greater through the necessity of paying more interest on new issues of bonds. Under these new conditions the average person would think no more of ten cents than he had previously thought of five.

The following table illustrates the prices at which the largest profits could be obtained:

Rate of Fare	Number of Passengers	Gross Income	Fixed Charges	Operating Expenses	Net Income
5 cents.....	2,000,000	$100,000	$40,000	$45,000	$15,000
6 "	2,000,000	120,000	40,000	45,000	35,000
7 "	2,000,000	140,000	40,000	45,000	55,000
8 "	1,900,000	152,000	40,000	45,000	63,000
9 "	1,800,000	162,000	40,000	45,000	73,000
10 "	1,700,000	170,000	40,000	42,000	88,000
11 "	1,500,000	165,000	40,000	40,000	85,000

If unrestricted by its charter as to fares and there were no limit to fares by law, the company would charge ten cents, but if the legal rate were five cents it would complain that such a rate was in the nature of confiscation and would demand the privilege of charging a higher rate.

Classification of Monopolies.—Monopolies have been classified by many economists, but none seems so satisfactory as that of Professor Charles J. Bullock, from whose work* the following is in part an adaptation:

- Monopolies
  - Monopolies of Personal Ability
    - Exceptional artists, singers, surgeons, etc.
  - Legal Monopolies
    - Private
      - Monopolies secured by patents and copyrights.
    - Public
      - Fiscal—like the tobacco monopoly of France.
      - Service—like the United States postal system.
  - Natural Monopolies
    - Monopolies of location.
    - Monopolies on account of the nature of business.
  - Capitalistic Monopolies

Personal Monopolies.—Personal monopolies may result from very exceptional personal ability. An opera-singer may surpass any other at any given time and will command an unusual price for his services. Surgeons of unusual ability, as well as actors and even business men of remarkable talent, have monopoly powers. Such monopolies are not of great importance, as acquired powers are not transmitted to descendants.

Private Legal Monopolies.—Privileges were, in olden times, granted by sovereigns to their favorites. These

**Introduction to the Study of Economics*, pp. 313–318.

often consisted in giving them monopolies to sell certain objects. Monopolies of this kind were especially common in the time of Queen Elizabeth and her immediate successors. So great was the opposition to private monopolies that a law of 1624 forbade them except in case of patents for inventions or for new processes.

No person may be given exclusive privilege in the United States to manufacture and sell an article unless he has obtained a patent or copyright.

Patents.—Patents may be issued in the United States to "any person, native or foreign, who has invented or discovered any new and useful art, machine, manufacture, or composition of matter, or any new and useful improvement thereof, not known or used in this country, and not patented or described in any publication in this or any foreign country, before his invention or discovery thereof, and not in public use or on sale for more than two years prior to his application, unless the same is proved to have been abandoned, may, upon payment of the fees required by law and other due proceedings had, obtain a patent thereof." When protected by a patent the inventor or discoverer has the exclusive right to manufacture and sell the article for a period of seventeen years, unless the article has been patented abroad previously, in which case the American patent ceases with the expiration of the foreign patent.

Patents have been the cause of many monopolies in the United States; even when the patent expires the original company has control of the markets. The patent laws of the United States are justified because they are presumed to stimulate inventions. Some criticise this argument by

stating that inventors would be as active without any patent laws; it is, however, doubtful whether the research and experiment necessary to perfect a valuable invention would be given without the possibility of obtaining a patent. Another argument is that it would be difficult to induce any one to invest in the machinery necessary to produce a new article unless some protection were given. The objection that the inventor frequently makes little out of his patent, the lion's share going to the manufacturer, is not impressive. It is not the fault of the law if inventors make poor bargains with manufacturers.

Another objection is that patents may be purchased by some company engaged in producing a similar article by another process and may never be used. This may be prevented by a law providing that a patent shall expire unless it is utilized within a reasonable time, say five years.

Copyrights.—The author or publishers of a book may secure a copyright. This gives exclusive privilege to publish the book for a period of twenty-eight years and the copyright may be renewed for fourteen years. Without such protection any one could publish a rival edition of a successful book and the author would be deprived of profits. Pictures may be copyrighted and so may drawings.

Privileges of copyright are extended to trade-marks. This creates no monopoly, but protects the public from unscrupulous dealers who might try to take advantage of another's reputation, gained by years of honest endeavor.

Public Legal Monopolies.—Public legal monopolies are of two kinds: (1) Social service monopolies, (2) fiscal monopolies. A social service monopoly is one that is

maintained for the advantage of the public without being primarily conducted for revenue purposes. The postal service is an example of this kind of monopoly.

Fiscal monopolies are those operated by the government for the purpose of the revenue which they produce. France, for example, permits no competition with the State manufacture and sale of tobacco. The tobacco business is operated to make money for the State and the results are not different from what they would be if the same revenue were obtained by taxes on tobacco.

Natural Monopolies.—Natural monopolies may be divided into two classes: (1) Natural monopolies by reason of location, (2) natural monopolies on account of the nature of their business.

Natural Monopolies of Location.—Some localities have such advantages over others as to constitute a monopoly. The best point from which to view Niagara Falls from the American side is Prospect Point, and before the State of New York acquired this site, a very considerable revenue was obtained by the private company which controlled it. The ownership of the sources of supply, like the mineral springs at Saratoga (now owned by the State of New York), may give a monopoly. A good example of such a monopoly is the British corporation which controls the diamond-mines of South Africa. The anthracite coal monopoly of Pennsylvania is due to the ownership of the sources of supply by a few large corporations.

If the owners of the sources of supply use their monopoly to exact an unreasonable price from consumers, there is no question of the right of the government to regulate prices in the interest of the public.

Natural Monopolies by Nature of the Business.—These monopolies may be divided into two classes: (1) Local monopolies, (2) general monopolies. Local monopolies are concerned with furnishing such public utilities as water, gas, electricity, and street-railroad transportation. General monopolies furnish such services as railroad transportation, telegraph, and express service. The telephone is chiefly local, though not exclusively so. In all these lines of business, competition tends to disappear and monopoly to take its place.

The Water Monopoly.—The advantages of monopoly in supplying water for a city are obvious. One system of pipes and reservoirs may be installed and operated more cheaply than two. Unnecessary duplication of plants costs money, which must finally be paid by the public in increased rates. Even though one company is given complete monopoly in one part of the city and another company has another part of the city, there is a duplication of storage facilities. The question of private *versus* public ownership and operation is still an open one in regard to most public-service monopolies, but not with regard to water-supply. It has been settled in favor of public ownership and operation. A pure and abundant water-supply is a necessity for every city and it must be secured at whatever cost. A revenue from the water-works is the last thing to be considered; the lives of the citizens are imperiled if money-making is a chief consideration. Most of the large cities in America own and operate their water-works.

Gas and Electric Service.—The gas and electric services of almost every city in the United States are monopolies.

Competition, if established, leads to consolidation. The frequent occurrence of the words "consolidated," "union," and other words of similar meaning in the names of gas companies, shows that they were formed through the amalgamation of competing companies. The unnecessary duplication of plants must be paid for by the consumer. In passing upon the legality of rates for gas and electric service, as fixed by legislative enactment or a public-service commission, the courts consider that a corporation is entitled to a fair return on the capital invested. Attempts at competition increase unnecessarily investments of capital and make prices higher than they otherwise might be. The story is everywhere the same: Two companies existing at the same time will compete and make a low price; neither can make money. In a short time one sells out to the other, or they consolidate under a new name and in the end the public pays the bill.

The Telephone Business.—Though the telephone business is a natural monopoly, the tendency toward consolidation is not quite so strong as is the case with other natural monopolies. Competition exists in hundreds of towns and cities, including a few large ones, but the public is better served by a monopoly. Where there are two telephone companies serving the same district, much saving would result through consolidation. One company could do all the business and save by reducing the expense for exchanges, wires, and employees.

Two telephone systems are inconvenient. It frequently happens that the person wanted has only the service of the rival line. Commercial houses must subscribe to both lines with the added expenses not only of the second line,

but the space required and the extra help that must be employed.

Street Railroads.—The street railroads show the same tendency toward consolidation as seen in other natural monopolies. Monopoly saves much in salaries of officials, in economy in furnishing power from one or two large power plants instead of several small ones, in the elimination of unnecessary parallel lines.

Public *versus* Private Ownership of Natural Monopolies.—The question of public *versus* private ownership of those natural monopolies which are the result of conditions inherent in the business, making competition self-destructive, is one of the great economic problems of our day. Advocates of municipal ownership present arguments like the following:

1. Private ownership is expensive. Immense losses result from unwise attempts at competition.

2. A municipality being free from any possibility of competition may charge a lower rate and will be operated in the public interest rather than for private gain.

3. Much corruption in politics comes through private corporations seeking franchises and other privileges from city officials. By increasing the powers of municipal governments, a greater interest in municipal affairs will be created and a better class of men will be elected to office.

4. The success of municipal ownership, chiefly in Europe, is cited as a reason for extending the policy of municipal ownership.

5. It is claimed that experience with private ownership shows that nothing less than municipal ownership and operation can protect the interest of the public.

6. Public ownership and operation would prevent the periodic strikes, which under private operation have been costly and annoying to the public.

Against municipal ownership and operation the following arguments are advanced:

1. The cities do not conduct their present activities with that degree of efficiency which would justify an extension of their powers. Public business undertakings are almost always conducted at greater expense and with less efficiency than private undertakings.

2. Public ownership in the United States would result in more spoils for the politicians.

3. The cities would not make profits, but would lose. The large revenue now coming to the cities through taxation of private companies would cease, and if there were apparent profits they would not equal the losses in taxation.

4. Private ownership is more progressive. The privately owned telephone, gas, and street-railroad lines of the United States are superior in service to the municipal plants of European cities.

5. Public regulation as to rates and quality of service can gain all the advantages of public ownership without its disadvantages.

6. Strikes are not unknown under public ownership.

Public Control of Natural Monopolies.—If natural monopolies are to be private property, they must be subject to public control. Such control is now exercised by public-service commissions in most American states. Such rules as the following are recommended:

1. Franchises should be granted for a limited term,

usually not exceeding twenty-five years and the city should be paid for every franchise granted.

2. The possessor of a franchise should be protected against any attempt at competition by having an exclusive right to furnish service within the city or a part of it.

3. Quality and prices should be regulated by law.

4. Financial accounts of the corporations should be matters of public record.

5. When the franchise expires, all rights should revert to the city.

Limits to Regulation of Prices.—It is unwise to endeavor to compel a corporation to furnish a service below the cost of production. No corporation can secure funds for improvements or long continue to give adequate service unless it can pay expenses and make a reasonable profit.

The Fourteenth Amendment to the Constitution of the United States reads in part: "Nor shall any State deprive any person of life, liberty, or property, without due process of law." This clause has been invoked chiefly to prevent state legislative bodies from depriving corporations of their earning power by fixing prices below a reasonable figure, though the common view when it was enacted was that this amendment was passed to protect the newly emancipated slaves. Corporations are "artificial persons" in the meaning of the law and as such are entitled to protection under the Fourteenth Amendment. In 1909 the Supreme Court of the United States decided that a state law fixing the price of gas in New York City at eighty cents a thousand feet was constitutional. In arriving at this decision the court held that the New York Consoli-

dated Gas Company was entitled to a return of 6 per cent —that being at the time the customary rate of interest in New York—on the value of its property. Several other decisions of the Supreme Court indicate that a legislative body cannot fix prices below a "reasonable" rate and that a reasonable rate means a rate which will provide for meeting expenses and yield a fair return on the investment.

The Supreme Court of the United States handed down two important decisions on April 11, 1921, both of which denied to municipalities the right to fix rates for services rendered by corporations at less than enough to pay expenses and yield a reasonable profit. The first case affirmed a decree of the Texas district court enjoining the City of San Antonio from enforcing a five-cent fare over the lines of the San Antonio Public Service Company. In appealing from the decision of the Texas court, the city asserted that its franchise contract with the railroad called for service at five cents and that the courts were without jurisdiction to interfere.

The second case set aside an injunction obtained from a lower court by the City of Fairfield, Iowa, restraining the Iowa Electric Company from increasing its rates above those set in its franchise.

It is good law therefore as well as good economics to say that no corporation can be expected to furnish a service at less than cost, including a fair return on the capital invested.

Railroad Monopolies.—In the chapter entitled "Transportation," we have seen how the railroads of the United States were consolidated into great systems. In 1906 there were seventeen of these systems controlling 176,000

miles of railroad, out of a total of 228,000 miles. The more important systems were the Vanderbilt group (21,333 miles), the Hill group (21,303 miles), the Pennsylvania group (20,182 miles), the Harriman group (19,182 miles), the Morgan group (17,810 miles), and the Gould group (16,902 miles).*

Railroad consolidations were brought about by purchase, ownership of a controlling interest in shares, or by lease. Each section of the United States was served by one of these groups and there was no competition. The transcontinental and great trunk lines had agreements with each other that prevented competition on long-distance hauls. To remedy abuses the Interstate Commerce Commission was created.

The Transportation Act of 1920.—This act originated a new policy in dealing with the railroads. It recognizes that they are monopolies and treats them as such. The Interstate Commerce Commission, increased to eleven members by the act, expressly permits pooling of freights and division of profits among the railroads. It does more. It requires the commission to prepare and adopt, as soon as practicable, a plan for the consolidation of railroad properties of the continental United States into a limited number of systems. The act authorizes the railroads, with the approval of the commission, to consolidate their properties

* These names were not used officially. The Vanderbilt group, for example, included the following railroads: New York Central and Hudson River; Lake Shore and Michigan Southern; New York, Chicago, and St. Louis; Michigan Central; Delaware and Hudson; Cleveland, Cincinnati, Chicago, and St. Louis; Chicago and Northwestern; Chicago, St. Paul, Minneapolis, and Omaha; Fremont, Elkhorn, and Missouri Valley; Delaware, Lackawanna, and Western; Lake Erie and Western; Pittsburg and Lake Erie; Indiana, Illinois, and Iowa.

or any part of them. The commission is authorized to fix rates so that the companies may receive a fair return on their investments.

Government Control of Railroads.—The arguments in regard to government ownership of railroads do not differ from those given in the discussion of municipal monopolies and set forth in the chapter devoted to transportation. The Transportation Act of 1920 shows that the immediate policy of the United States will be private ownership of railroads subject to government control. The chief features of the Act of 1920 are:

1. Strong government control. This includes fixing of rates and preventing all discrimination. No one may receive lower rates or better service than another, nor shall one city receive lower rates than another similarly situated.

2. Railroads engaged in interstate business are forbidden to issue stock or bonds or other securities without obtaining the consent of the commission.

3. Rates are fixed so that railroad companies may receive a fair return on their investments. This will attract private capital and enable the railroads to secure money for necessary improvements and equipment.

Trusts, or Capitalistic Monopolies

What is a Trust?—The original trust was the Standard Oil Trust. It was formed in 1882 by several companies placing their stock in the hands of nine trustees who managed the business of the constituent companies. This plan of organization was called a trust. Between the

years 1882 and 1890 many combinations of business corporations were formed on the trust plan. The trust plan became illegal with the passage of the Sherman Anti-Trust Law of 1890, but the word "trust" came to be applied to any combination or monopoly. Professor Lippincott suggests that there is logical sequence in the developing of the use of this term. It was at first used in a legal sense, applying to stocks placed in the hands of trustees. Since these trusts were combinations of business enterprises, the term began to be applied to all combinations whether formed on the trust plan or otherwise. Then, since combinations were usually formed to create monopolies the term began to be applied to monopolies of all kinds.

The term trust, or capitalistic monopoly, is used by economists as applying to monopolies that are not natural monopolies, but are the result of vast capital controlled by a few persons. For example, the making of cameras is not a business which naturally becomes a monopoly, but it may become a monopoly by some great corporation getting control of all the manufacturing plants which make cameras.

Anti-Trust Laws.—Public sentiment was against trusts, and in 1888 the platforms of both great political parties contained anti-trust planks. The Sherman Anti-Trust Act of 1890 followed. This act declared all combinations in restraint of trade illegal. Most of the states passed similar acts.

The Standard Oil Trust, the American Tobacco Company, and several other combinations were prosecuted and required to dissolve. They promptly reorganized under

other forms and their control of business was in no way lessened. The first anti-trust laws were directed against the form of organization. Recently more attention has been given to methods of doing business.

In 1914 the Clayton Act was passed. The chief provisions of this act are:

1. Certain business practices are declared illegal. These include giving favors to one purchaser which are denied another under similar conditions. Selling goods to a dealer on condition that he will not purchase any goods from a competitor is pronounced illegal.

2. Interlocking directorates, or having the same directors in competing companies, is prohibited to companies engaged in interstate commerce if the capital of these companies exceeds $1,000,000.

3. One company cannot acquire the stock of a competing company.

4. Combinations of laborers and farmers are exempted from the provisions of the act and may not be prosecuted under the Sherman Act.

The Federal Trade Commission Act of 1914 provided a commission of five persons to be nominated by the President. This commission has the power to investigate any case of unfair competition and may order any person or corporation to desist from unfair competition. The commission has authority to present cases of unfair competition to the courts for trial.

Summary.—The absence of competition constitutes monopoly. Monopoly does not necessarily imply exorbitant prices. Prices are arranged under monopoly to give the largest possible profits. Personal monopolies exist

when a person has unique ability. An opera-singer may receive a monopoly price for his services. Such monopolies never last long, as acquired powers are not transmitted to descendants. Patents and copyrights create monopolies for a limited time. Natural monopolies exist either because of control of the source of supply or because of the nature of the business conducted by a corporation. Natural monopolies should be recognized as monopolies and competition should not be encouraged. The public may either own and operate natural monopolies or permit private companies to own and operate them, subject to public control.

Capitalistic monopolies should be subject to such control as will prevent unfair competition. A company is not an evil because it is large, nor a blessing because it is small. The Clayton Act and the Federal Trade Commission are designed to prevent unfair competition.

TOPICS FOR DISCUSSION, DEBATE, AND SPECIAL REPORTS

1. What persons whom you know possess monopoly ability? What persons of whom you have heard receive large fees or salaries because of the possession of unusual ability?
2. Do private companies or the city own the water-works which supply your city with water? Is the service satisfactory?
3. Do you favor city ownership of the street railroads of your city? Why?
4. What objections are there to the granting of railroad passes to private individuals? to public officials?
5. Do the electric railroads of your vicinity compete with the steam railroads? Do automobile trucks compete with railroads? What has been the effect?

CHAPTER XXIV

RENT

Definition of Rent.—The word "rent," as used by most persons, refers to a sum of money paid for the use of any article. The economist limits rent to payment for the use of land. Money paid for the use of capital is interest, not rent. Economic rent is the income which land affords as its share in the production of wealth.

Some lands are more fertile than others. We may imagine land so poorly suited to raising wheat that the crop will merely pay the cost of labor, seed, and interest on the capital. This land would be the margin of cultivation for wheat. There would be nothing for rent. On another piece of land the same amount of labor and capital will pay all expenses and afford a surplus of fifteen bushels per acre. The difference is not due to superior use of labor and capital, for we have assumed they are equal in each case. The superiority of the land accounts for the larger yield. Location makes some lands better than others. Land which is near a market is better than distant lands. Advantage of location is frequently great enough to overcome advantage of fertility. For example, the soil in the Red River Valley of North Dakota is superior to the soil of eastern Long Island, but Long Island land commands larger rents because of proximity to New York City.

The rent of agricultural land, it is seen, depends upon two things: fertility of the soil and proximity to market.

It should be noted that economic rent exists whether the land is cultivated by the owner or is leased to a tenant.

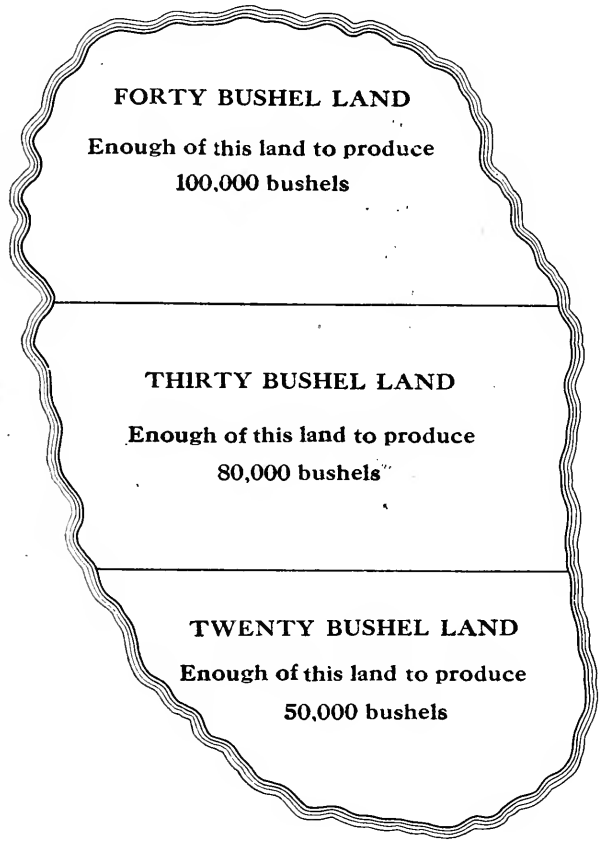
Land on the Margin of Cultivation.—Any piece of land is capable of many uses. The tendency is to put the land to that use for which it is best suited. Land near a city will be used for truck farming because this employment of the land pays best. More distant lands will be more profitably employed in raising wheat or general farming. The point where it is a matter of indifference to the farmer whether he engages in truck farming or general farming is the margin of cultivation for truck farming. There is rent afforded for this marginal land when devoted to truck farming, because it must pay as much for truck farming as it would pay if devoted to general farming. The poorer lands used in general farming may be used for grazing. These lands must afford the same rent for agricultural purposes that they would yield if devoted to grazing.

It is seen that economic rent consists of two elements—marginal rent, or the rent paid for the poorest land actually used for any purpose, and differential rent, which measures the difference between marginal land and better lands.

Is There "No-Rent Land"?—Economists speak of "no-rent land." This land is too poor to produce more than a bare living. The cultivator of "no-rent land" can only support himself and therefore there is nothing left for rent. There are such lands in cultivation, even though better lands are idle. This is because of the ignorance, shiftlessness, or lack of ambition of the farmer.

Rents of Agricultural Lands Do Not Affect Prices.—Let us imagine an island in the Southern Seas. The land of

this island is most fertile in the north and regularly declines in fertility as we approach the south. Along comes Robinson Crusoe and takes possession of a part of the most fertile land, which is capable of yielding forty bushels of wheat

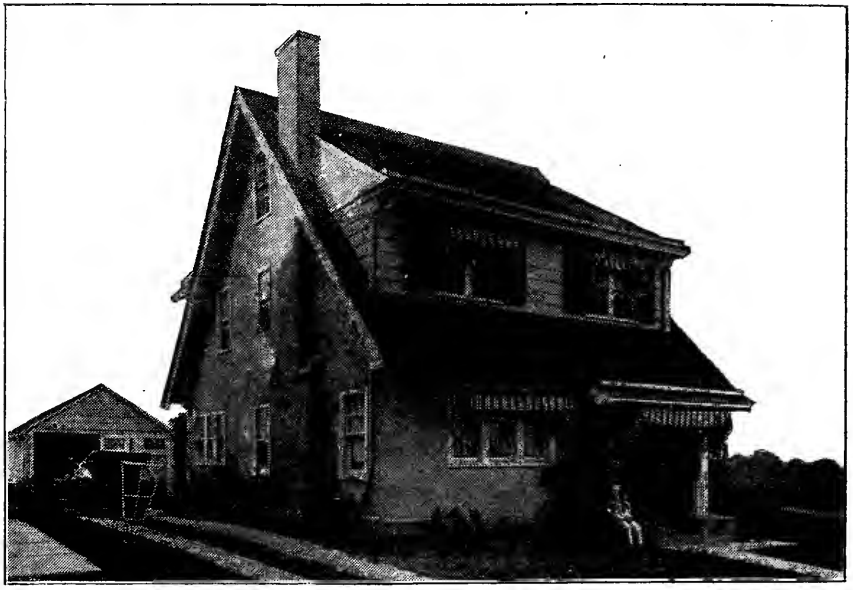


to the acre. The land is free and no rent is paid. Soon Friday lands and occupies an adjoining strip of land. Still no rent is paid as there is abundance of equally fertile land unoccupied. So long as there is demand for only that amount of wheat that can be raised on the best land and there is still a portion of the best land to be had for the

asking there will be no rent. But the population grows and soon the best land is all occupied and there is demand for more wheat than can be raised on the best land. If the cost of production is eighty cents per bushel on the land which produces forty bushels to the acre, the thirty-bushel land will not be used until the price of wheat rises to about $1.07 a bushel, because the same amount of labor and capital is required to produce thirty bushels on the poorer land as would produce forty bushels on the best land. As soon as the price of wheat rises enough to make it profitable to cultivate the thirty-bushel land, the better land will command a rental of ten bushels to the acre, because a farmer could as well afford to pay ten bushels rent for the best land as to raise thirty bushels on the no-rent land. Moreover he would have superior social advantages on the better land as he would be near Crusoeville where there is a general store, a school, a church, and "movies" on Saturday night.

In like manner when the demand for wheat exceeds 180,000 bushels a year, the price of wheat will rise until it becomes profitable to cultivate the twenty-bushel land and now the forty-bushel land will afford a rent of twenty bushels per acre and the thirty-bushel land will command a rent of ten bushels per acre. From the illustration it is seen that prices are not high because rent is paid, but rent is paid because prices are high.

Do Agricultural Rents Always Rise?—It might be thought that rents of agricultural land will continually rise as population increases. Such is not the case—new and rich agricultural lands may be opened to cultivation. These will raise the margin of cultivation and tend to



From photographs by Brown Brothers.

A CITY APARTMENT-HOUSE AND A SUBURBAN HOUSE

The apartment-house will accommodate seventy families without overcrowding. It does not pay to erect such apartment-houses except where land rents are high.

lower rents. Improvements in the science of agriculture may make lands productive which were once thought useless. Swamps may be drained and dry lands may be made productive by irrigation. Rents of agricultural land in New England have fallen with the opening of rich western land and it no longer pays to grow wheat in New England.

Urban Rents.—Location is the one thing that affects rents in cities. The land in the centre of the city always commands the highest rents. The centre of the city is always devoted to business. Some portions are more desirable than others and for this reason rent for larger amounts. If you were considering opening a clothing store in a city, you might find that the best available location would require $20,000 a year rent for the land. Another piece of land might be rented for $5,000 a year. The $20,000 plot might be the better bargain because the sales would much exceed those that could be made in the cheaper section of the city. Ten thousand sales at an average profit of $5 per sale in the better location would yield a gross return of $50,000. After paying $20,000 rent there would be left $30,000. Out of this sum perhaps $5,000 would be taken for the services of clerks who would not be required in the cheaper location. In the cheaper section of the city 2,000 sales at a profit of $5 per sale might be made. This would produce a gross return of $10,000, and after paying rent there would be only $5,000 left. It is seen from the above illustration that high rents do not necessarily mean high prices.

Within the business section of a city, rentals vary from place to place. The business which can afford to pay the

highest prices gets the best locations. Outside the business portion of the city lies a belt which may be used for manufacturing, trade, or residences. This belt may be regarded as the margin for purposes of trade. Near the railroads or water are the best sites for manufacturing.

Rents for residence purposes differ with the demand for land in each section. Land used for poor tenements may command a high rent because of the income which may be obtained from such tenements. Land in the fashionable section of the city will yield high rent because people are willing to pay high prices for it. On the other hand there may be "no-rent land" on the outskirts of the city where "squatters" are living on land in little hovels of their own construction and from which the owners of the land do not take the trouble to evict them because for the present there is no profitable use to which the land may be put.

Changes in Urban Rents.—Rent of urban lands does not continually rise as is often supposed. Changes in lines of transportation and changes in the population of a section of a city may cause rents to fall. The erection of a jail or a hospital often depresses the value of adjoining land. The building of the Brooklyn Bridge caused rents to fall in sections of Brooklyn that had been on lines of communication with the ferries and caused rents to rise on the new lines of communication with Manhattan Island. New suburbs made available by new means of transportation may cause rents to fall in certain residential sections of a city.

Summary.—Economic rent is the payment for the use of land, mines, water-power, or other natural agents of production. Two items enter into the rent of agricultural

land. They are fertility of the soil and location. The poorest land actually used for raising any agricultural product is the margin of cultivation for that product. There may be rent paid for the use of this poorest land or it may be no-rent land. The rent of better lands varies with the advantages they afford. Rent is not the cause of high prices of farm products, because poorer lands are not cultivated until rise in prices makes it profitable to till these lands. Rents of agricultural lands do not always rise with increase of population as the margin of cultivation may be raised by new and fertile lands being opened to cultivation. Rents of city lands depend wholly upon location. The rents of these lands depend upon what people are willing to pay for them for business purposes or for residences. High rents for stores do not necessarily mean high prices. Rent of urban lands is measured by the degree of superiority of the land in question over the poorest land devoted to the same use. Rents of urban land rise or fall with changes in the desirability of such land.

TOPICS FOR DISCUSSION, DEBATE, AND SPECIAL REPORTS

1. Do you know of any "no-rent land" in your community? Have there been any recent changes in rental values in your city? What has caused these changes?
2. Some retail dealers advertise that they can sell goods cheaper than others because they pay less rent. Are such claims always well taken? Are they sometimes true? Explain.
3. What portions of the business section of your city rent for the highest amounts? Why? Why are rents on one side of a street sometimes higher than those on the opposite side?

4. Ask some old resident of your city what was the fashionable part of your city for residence purposes forty years ago. What changes have occurred since then?
5. Give an example of the rise and fall of rents in urban property. In agricultural lands.
6. Suppose that 60,000 bushels of potatoes are required to satisfy the wants of a small city and 10,000 bushels are supplied by one farmer. Suppose further that this farmer, owning his own land, should decide to sell his potatoes without including any charge for rent and without regard to the current scale of prices. What would be the effect (1) upon other producers of potatoes? (2) upon prices? (3) upon supply?

CHAPTER XXV

WAGES

Wages are the laborer's share in the products of industry. They are advanced by the employer before the goods are sold but they must finally come out of the product. Labor in the economic sense includes all efforts, whether of mind or body, devoted to the creation of wealth. The salary of a superintendent of a mine is a wage just as is the pay of a miner. Wages may vary from a hundred thousand dollars a year paid to a railroad president to a few dollars a day paid to a section-hand.

Limits of Wages.—Since wages are paid out of the products of industry, it is apparent that in the long run a laborer cannot receive more wages than the value he adds to the article he produces. The lowest limit of wages is an amount barely sufficient to support the laborer and his family. Should wages fall below the point of subsistence there will be, in the long run, fewer laborers and therefore wages must rise. The lower limit of wages is seldom fixed at the point of subsistence. Usually it is fixed by the standard of living. At any one time the laborers in any employment are accustomed to a certain amount of necessaries, comforts, and luxuries. This is their standard of living and they will not abandon it without a struggle. The standard of living cannot affect wages except as it influences the supply of labor. So long as laborers will not marry unless they can maintain a high standard of

living, wages will be high. The standard of living may be lowered by a succession of years of depression in industry, or by immigrants who will work for a lower wage and who have a low standard of living.

The supply of labor does not rapidly change and there is a possibility that the children of laborers may grow up with a lower standard than their parents had maintained in more prosperous years. On the other hand, the standard of living may rise, as it has steadily risen in the United States. With more education and better training, the laborers have a broader outlook and are better producers. They receive higher wages because they earn them, and not by reducing the shares which belong to other members of the community.

Real and Nominal Wages.—The money which laborers receive for their services is nominal wages. Real wages are the goods and services which the money will buy. To show that nominal wages in 1920 were double nominal wages in 1914 does not show that the laborers were more prosperous. A fall in nominal wages may be accompanied by a rise in real wages.

Wages in different countries and in different parts of the same country cannot be compared accurately except in terms of real wages. A school-teacher in New York or Chicago who receives $2,500 a year may receive less real wages than a country school-teacher who receives $1,000 a year.

The Demand and Supply of Labor.—Wages at any time depend upon the demand and supply of labor. Demand for labor is sometimes a demand for the direct services of labor. This is the case with personal services such as

rendered by barbers, domestic servants, physicians, and musicians. More often it is not labor that is desired, but the articles which labor will produce.

The demand for labor varies with the price of labor. At any one time there is a certain wage. Let the wage rise and demand is lessened, or let wages fall and the demand is increased. For example, if wages are five dollars a day, an entrepreneur can place goods upon the market to sell at a certain price. If wages rise to eight dollars a day, the entrepreneur must sell his goods at a higher price, which will reduce the demand for the goods and consequently the demand for labor. If the demand for the goods is elastic the effect upon the demand for labor is soon felt.

When wages are high there is a tendency to supplant labor by machinery. For example, if farm labor is expensive, it pays to have ploughing done by a gang-plough drawn by a tractor. The substitution of machinery for labor, it should be noted, does not decrease the demand for labor in general, but only for a particular kind of labor at a certain time. The demand for labor at any one time depends upon the amount of capital available. If capital is scarce there is less demand for labor than when it is abundant. The economic depression in Europe following the Great War was chiefly because of the lack of capital.

Time Wages.—Time wages are paid for the time spent in work. Time wages may be paid by the hour, day, week, or month. Time wages are based upon the theory that the average workman produces so much in a given time. No advantage is given to the especially efficient workman unless he attracts the attention of a foreman and is listed for promotion. Time wages tempt some workmen to do

as little as they can without incurring the penalty of discharge.

Piece Wages.—Piece wages are paid for the amount of work done. The wage is a definite payment for a definite service. This method of payment discourages loafing on the job, but there is a tendency to speed up work and the employer sometimes fixes piece wages at a rate that will give a living wage to only the most efficient. If the employer sees that a man is making ten dollars a day, he may think of it as a day's wage rather than as a payment for ten dollars' worth of work and is tempted to cut the piece wage. Piece wages are objectionable if they overwork the employees. "Piece-work is the work that kills" is an old saying.

Rate-of-Service Wages.—There are many varieties of rate-of-service wages, but all include a time wage with a bonus for increased production. Rate-of-service wages are therefore a combination of time wages and piece wages. This is not profit-sharing because the bonus is paid for time saved and not out of profits. At its best this system provides a living wage as a base, with a bonus for increased efficiency.

Non-Competitive Groups.—The workers of a country may be divided into five fairly distinct groups. The first group consists of unskilled manual laborers. Competition is strong within this group, as it is easy to shift from one kind of unskilled work to another. Wages tend to be the same within the group. If wages should be higher in one employment than another, competition among workers for the higher-paid employment will depress wages. If one employment is underpaid as compared to another, work-

men cannot readily be obtained in that employment and wages must rise. The next higher group is that of skilled laborers. There is no competition with the lower group and within this group there is less competition than within the group of unskilled laborers. Wages are higher than in the lower group, as the number of skilled laborers is less than the number of unskilled men. The tendency is for wages within the group to vary with the skill required.

The third group is composed of ordinary mental workers such as clerks, salesmen, and keepers of small shops. Wages in this group may be greater or less than in the group of skilled manual laborers. The fourth group consists of most business and professional men. Competition within the group is strong, but there is no competition with those outside of the group. The last group is composed of men of unusual ability. Because of their exceptional ability they have a monopoly advantage. Great business men, eminent surgeons, actors of rare ability are among those who belong to this group. There is less competition within this group than within any of the other groups and there is little or no competition by members of lower groups.

Members of a higher group may be pushed temporarily into a lower group by an industrial depression or some other unusual condition, but each man tends to remain within the group for which his ability and training fit him. Men rise from one group to another as they gain in experience and ability. At any one time within each group wages depend upon supply and demand.

Adam Smith's Reasons for Differences in Wages.—In his *Wealth of Nations*, Adam Smith gives five reasons for

wages being different in various employments. Wages, he says, vary with:

I. The agreeableness or disagreeableness of the employments themselves.

II. The easiness and cheapness, or the difficulty and expense, of learning them.

III. The constancy or inconstancy of employment in them. If a trade can be followed only part of the year, wages must be higher than a trade that offers regular employment throughout the year.

IV. The small or great trust which must be reposed in those who exercise them.

V. The probability or improbability of success in them. If success is sure the reward is small; if uncertain, those who succeed receive large returns.

The causes which Adam Smith mentions operate only because they affect the supply of labor. They must be considered together and not separately. For example, a garbage collector does not follow an agreeable occupation, yet his wages are low. Adam Smith's first cause would seem to imply that the wages of a garbage collector should be high, but the four other causes show why his wages are low.

Summary.—Land, labor, and capital co-operate in the production of wealth and each is entitled to a share of the product. Labor cannot receive the entire product because, in this event, capital and land would not be furnished by their owners. The share which each receives depends upon how much each is needed. If labor is in much demand wages will be high. If there is much labor as compared to capital and land, wages will be low. Wages

are paid out of the products of industry. A high standard of living means high wages, but not necessarily high cost of production, because well-paid laborers produce more than poorly paid laborers. Real wages consist of the goods which may be purchased with money wages.

At any one time wages are paid for the time employed in work. Piece wages are paid at so much per piece. Rate-of-service wages are a combination of time wages and piece wages. Skilled labor does not compete with unskilled labor nor does brain work compete with manual labor. Wage-earners may be divided into five non-competitive groups. The way to get high wages is to prepare for entrance into a group where competition is not intense.

TOPICS FOR DISCUSSION, DEBATE, AND SPECIAL REPORTS

1. Would you rather be a dentist, a physician, or a pharmacist? What preparation is needed for each profession? How do the hours of labor compare? How do wages compare? Which is held in the highest social esteem?
2. Why do men generally receive a higher wage than women in the same employments? Why do labor unions composed of men demand equal pay for women?
3. Read Adam Smith's reasons for differences in wages in different employments as set forth in his *Wealth of Nations*. What do you think of his reasons for so many young men being attracted to the legal profession?
4. What laborers in your city are paid time wages? Piece wages? How does their wage affect their efforts?
5. How do wages in your city compare with wages five years ago? What has caused any difference? Have real wages or nominal wages changed?

CHAPTER XXVI

LABOR PROBLEMS

The Open versus the Closed Shop.—In an open shop there is theoretically no discrimination in the employment of labor. A laborer may secure employment without regard to his membership or non-membership in a union. Many "open shops" are open in theory only, as the employers discriminate against union labor.

A closed shop is one which employs only union labor. All labor unions desire the closed shop and maintain that without a closed shop the union cannot accomplish its purposes. If the labor organizations can control the supply of labor and make it necessary for employers to engage union men or none at all, they can exercise a monopoly power and can force employers to grant any reasonable demands.

The arguments in favor of an open shop are as follows:

1. Labor organizations are a monopoly, or wish to become a monopoly. By limiting the number of laborers in certain industries, they force workmen into other employments and overcrowd some industries.

2. Unions interfere with the right of non-union men to secure employment. Most workmen in the United States are not members of unions and do not wish to join. The labor organizations try to prevent them from getting employment or try to coerce them into joining the union. The closed shop is a means of oppression.

3. In a closed shop the unions often limit the amount of work that a man can do in a day. They slow up production to the injury of all members of society, themselves included.

4. When labor unions control a shop they stir up strife and ill-feeling with employers. They interfere with the employer's right to run his own affairs in his own way.

The advocates of the closed shop reply with arguments like the following:

1. Labor unions have secured higher wages, better conditions, and shorter hours. This service has benefited all laborers. Employers who say they want the open shop really want to exclude union labor.

2. The closed shop is essential to collective bargaining. Employers are bound together in associations of employers. Labor must be united. An individual has no chance at bargaining. He goes to a shop and is told that wages are five dollars a day. He must take it or leave it. He cannot bargain. Unless the union can speak for all employees, it loses in bargaining power.

3. Limiting of output is sometimes desirable. Production may be set at too high a rate in piece-work, or hours may be too long in time-work. Unions do not favor loafing on the job. There is as much "soldiering" in non-union shops as in union shops.

4. Labor organizations are not the causes of industrial strife. Strikes are not the objects of unions, but are sometimes necessary in order to obtain justice. In an open shop there is less opportunity to obtain fair treatment than in a closed shop.

5. The employer who says it is none of the public's

business how his affairs are conducted is behind the times. The public says that he must not employ child labor, must keep his factory in a sanitary condition, and in other ways regulate his business. Labor has a right to say something about conditions of employment. Unorganized labor is inarticulate. Therefore organized labor must speak and it cannot speak with authority except in a closed shop.

The question of the open *versus* the closed shop cannot be answered except in a general way. Whether a closed shop is helpful or injurious depends on the union. Some unions have been agents of oppression, but this is generally the fault of dishonest leaders. If an employer tries to make his shop an open shop in order to force wages below the rate that will afford a fair standard of living and the unions oppose this, they are acting for the public interest. If the members of a union refuse to work for a man who employs "scab" labor and at the same time are willing to admit non-union men into their ranks without imposing prohibitive initiation fees, there is something to be said for them. The non-union man may injure the cause of labor by working for less than a fair wage. If, however, the union acts as a closed corporation by excluding new members or imposes prohibitive initiation fees, or unreasonably limits the number of apprentices or in other ways follows an oppressive policy, an open shop is best for all concerned.

Strikes.—A strike is a concerted quitting of work. That men have the right to stop work either as individuals or as members of a union is beyond question. However, a strike is industrial warfare and should be undertaken only

when all other efforts at redress of grievances have failed. Strikes injure laborers, for even if a strike succeeds it may be years before the advantages gained by the strike balance the losses incurred while the strike was being conducted. Just as the laborers lose wages during the strike, the employers lose business and profits. The public is often the chief loser, because it is put to inconvenience during a strike and has to pay increased prices if the supply of a commodity becomes scarce.

Resort to violence during strikes is always to be condemned. However just the cause of a strike, its instigators forfeit all claim to public support and sympathy when they resort to violence. Peaceful picketing, or stationing strikers near a shop in order to dissuade men from working, is generally regarded as legal, though the courts have not always so decided.

Sympathetic Strikes.—A sympathetic strike is one that is undertaken against an employer whose men have no grievance in order to force another employer to grant the demands of strikers. For example, there may be two street-railroad companies in a city. The employees of one line strike and after a time the employees of the other line strike in order that public pressure may be exerted to compel the first company to grant the demands of the men and end the inconvenience which the public has suffered. There is no apology for a sympathetic strike which injures an employer who has treated his men fairly.

General Strikes.—General strikes are strikes of all the workmen of a district or a country. They usually are the result of some real or fancied grievance against a government. There has never been a general strike in the

United States and there is no reason to anticipate that there ever will be.

Lockouts.—A lockout is a strike instituted by employers. Lockouts are usually resorted to when a strike is pending and the employers desire to precipitate action before the employees have completed their plans.

Arbitration.—The wisdom of settling disputes by arbitration admits of no doubt. Agreements between employers and employees sometimes provide that all disputes shall be settled by arbitration. Most American states have state boards of arbitration whose duty it is to endeavor to prevent strikes and if strikes occur to offer their services as arbitrators. The party to a dispute which claims that it has nothing to arbitrate usually has a weak case. Boards of arbitration generally consist of three persons, one chosen by each side and a third chosen by these two. Usually both sides agree to accept the decision of the arbitrators. The Canadian Industrial Disputes Act of 1907 forbids strikes or lockouts in industries engaged in furnishing transportation by railroads or street railroads or in industries furnishing heat, light, or power, unless the questions at issue have first been submitted to arbitration. After the board of arbitration has rendered its decision and the findings have been published, strikes or lockouts are legal. This has practically abolished strikes in Canada so far as they affect the industries named in the act.

In several of the provinces of Australia compulsory arbitration is established by law and the experiment seems to give general satisfaction. Compulsory arbitration is not favored generally in the United States by either employers or employees and is of doubtful constitutionality.

The State of Kansas, as a result of a strike in the coal mines of that state in the winter of 1919–1920, established a Court of Industrial Relations. This court has jurisdiction over disputes arising in industries of Kansas supplying the people with food, fuel, and transportation. Laborers in Kansas in the specified industries may secure direct and immediate redress of grievances without resorting to a strike. The Court of Industrial Relations is composed of three judges appointed by the governor with the advice and consent of the Senate. The court has the power to require the continuous operation of the specified industries, which are forbidden to shut down "for any purpose to affect wage controversies or the price of the commodity to the public." Though opposed by some labor leaders, the law has general support in Kansas and has practically abolished strikes and lockouts.

Boycotts.—A boycott is a refusal of a group of persons to purchase goods produced or sold by another person or group of persons. The boycott has long been in use. "The abolitionists boycotted slave-made products; the temperance people have used the same method to repress the liquor nuisance; the pulpit tried hard to boycott Sunday newspapers; and recently there has been established in the city of New York a society, consisting of women occupying excellent social positions, pledged not to purchase goods of houses which do not furnish proper conveniences for their saleswomen." *

A simple boycott usually starts by working men refusing to purchase goods made by a person whom they consider unfair to union labor. The boycott may be further ex-

* Wright, *Industrial Evolution of the United States*, p. 319.

tended by endeavoring to persuade others to join the boycott. A secondary boycott is one declared against a person who patronizes a boycotted firm. For example, a boycott may be declared against a street-railroad company. But John Doe, who is a grocer, continues to ride on the street-cars. Then the store of John Doe is boycotted. This is a secondary boycott. The courts have generally declared secondary boycotts to be illegal and such boycotts seem unjust.

Another form of boycott is to publish an unfair list, with or without advice not to patronize any firm on the list. The courts have generally upheld actions to prevent the publications of such lists. However, a fair list may be published. The Consumers' League publishes a "White List," giving the names of firms which conform to the standard which the league approves.

Child Labor Laws.—Children need play, open-air life, and schooling. Selfish parents and greedy employers will put children to work unless prevented by law. That a child may prefer to work rather than go to school is no excuse. The child is unable to make a wise decision in regard to his future. There is a probability that the child will enter some employment that leads nowhere. His earnings may seem large to him at first, but in a few years he will be distanced by the child who remains at school.

Laws are necessary in order to prevent child labor. In 1916 Congress passed an act debarring from interstate commerce all articles made by child labor. This act was declared unconstitutional and in 1919 a new child-labor law was enacted by Congress. The new law prohibits the employment of children under sixteen years of age in mines

and quarries, and of children under fourteen years of age in mills, canneries, workshops, and factories. Children under sixteen years of age may not be employed in mills, canneries, or factories more than eight hours a day, more than six days in a week, or at night.

The Federal law applies to only about 15 per cent of the child laborers of America. It is a good law so far as it goes; and it probably goes* as far as the Constitution permits.

Most legislation to prevent child labor must be left to the states. In twenty-six of the states children may not work unless physically qualified. Most of the states have educational requirements, but only six of the states require completion of the eighth grade, "which seems little enough to require of children who go to work under sixteen."

State laws usually prohibit the employment in factories of children under fourteen years of age, provide for continuation schools, prohibit night work and limit the hours of labor to eight or less.

Women Wage-Earners.—Women were extensively employed in industry before the World War, but the war vastly increased the number of women employees. There is no doubt that women will continue in industry. By entering gainful employments women are able to take care of themselves and need not marry unless they meet a man whom they consider worthy. The factory laws which have been passed to protect men against accidents and

* Judge Boyd, in the Western Judicial District of North Carolina, declared the law unconstitutional on May 2, 1919. The act is in force elsewhere in the United States.

unwholesome surroundings are not sufficient to protect women. Laws for the protection of women should prohibit night work, require comfortable seats with backs, make provision for separate and proper toilet facilities, and prohibit a working week of more than forty-four hours.

The Eight-Hour Day.—The working day should not be so long as to exhaust the working man nor to impair his health or strength. No one questions that the laborer should have a reasonable amount of time for his own use. He needs time for recreation, self-improvement, and social pleasures. In some employments, like agriculture, ten hours may not be too long for a working day. In others, like driving a fast locomotive, six hours may be enough. For factory work eight hours a day with a half holiday on Saturday is favored by most laborers. There is much to be said for the eight-hour day, but it should be an honest eight-hour day, not eight hours at regular pay and two additional hours at double pay. The advocates of an eight-hour day advance arguments like the following:

1. Long hours mean over-fatigue. Accidents and disease follow fatigue.

2. Long hours bring moral degradation. After excessive labor the tired worker responds more readily to coarse pleasures and excitements.

3. A shorter day increases efficiency of labor and improves the output.

4. Shorter hours lead to continuity of employment. When no restrictions are placed upon hours of labor in a seasonal industry the tendency is to concentrate the work in a brief season with long hours of overtime.

5. Shorter hours lead to better citizenship by giving time for education and self-improvement.

Summary.—One of the most important questions of our time is the open *versus* the closed shop. Chambers of Commerce and associations of employers are conducting campaigns in favor of the open shop, while the American Federation of Labor and labor organizations generally desire the closed shop. The question has been given much attention by the public press and by prominent men not identified with either labor or capital. It cannot be answered except in a general way. Some labor unions have used the closed shop to oppress their employers and some employers have used the open shop to lower wages below a decent standard. With a spirit of fair play on both sides, either an open or a closed shop may be operated to the benefit of all concerned.

Strikes are a loss to all, the public included. Even if the strike is won, the losses in wages while the strike was on may more than counteract the gain. There are times when strikes may be necessary but they should be avoided if possible. During one recent year (1918) there were 3,181 strikes and 104 lockouts in the United States. Resort to violence during strikes is always to be condemned. Any one who uses violence in a strike is a lawbreaker and forfeits all claim to sympathy.

Industrial disputes cannot always be avoided. They should be settled by arbitration. No one who has right on his side need fear the decision of an impartial board of arbitrators.

The boycott is another weapon of labor, but it is a weapon which should be used with care, if at all. A boy-

cott often inflicts injury upon innocent people. Even when started as a simple boycott, the tendency to resort to a secondary boycott is strong. Secondary boycotts are always morally unjustified. Among the most important of labor questions is the regulation of child labor. Children on the farm and in the home may work a reasonable time each day with profit to themselves. But a factory is no place for a child under fourteen years of age; some would even say under sixteen years of age. Since some parents are selfish and some employers greedy and no child under fourteen competent to look after his own welfare, the government must regulate conditions and hours of child laborers, make provision for their education, and should prohibit work at night of all under sixteen and absolutely prohibit labor in factories and mines of all children under fourteen years of age.

The eight-hour day is desired by most laborers. The advantages of a short labor day have been given in the text. However, it must be remembered that some employments are more exhausting than others. Ten hours' farm work is certainly less exhausting than eight hours in a factory, and eight hours in a factory are less exhausting than six hours spent as engineer on a fast express train.

TOPICS FOR DISCUSSION, DEBATE, AND SPECIAL REPORTS

1. Get the opinion of some employers of labor in your city on the open versus the closed shop. Also see what the laborers think about this question.
2. If the law of a state limited work in the mines to eight hours a day and the employers of the mines were requiring the men to work ten hours, would the men be justified in striking?

Give some instances of strikes that might be approved by fair-minded people.

3. Give a history of the great strike in the anthracite coal mines of Pennsylvania in 1902 and show how President Roosevelt brought the strike to an end.

4. "In the period 1881–1905 there occurred 36,757 strikes and 1,546 lockouts, involving 200,000 establishments and over 9,000,000 employees. The total direct and indirect losses resulting therefrom can only be guessed at, but they probably exceeded the direct cost of any war in which the United States had then been engaged."—Haworth, *The United States in Our Own Times.*

   What would you consider the indirect losses occasioned by a strike?

5. Why do women in industry need more protection by the laws than men?

CHAPTER XXVII

LABOR ORGANIZATIONS

There are many varieties of labor organizations. Among the more important are trade unions, industrial unions, and labor unions. A trade union is a labor organization composed of workers in one trade or in a number of allied trades. The International Typographical Union is an example of a trade union, as it confines its membership to those engaged in a particular trade. An industrial union admits to membership all laborers in one industry, even though they may be employed in different occupations. The United Mine Workers admits to membership all who are employed in the mining industry, whether within or outside the mines. A labor union seeks membership among all workers without reference to particular trades. The Industrial Workers of the World is a labor union.

The American Federation of Labor is composed of many labor organizations, some of them trade unions and some industrial unions. The Federation gives almost complete local autonomy to its member organizations, but assists them when in trouble. Its attention is chiefly directed to securing legislation favorable to labor, promoting the use of union labels, and organizing labor in districts where it has not been organized.

The Services of Labor Organizations.—Labor organizations render educational, social, and economic services to their members. Every labor organization is a debating

society, and its members receive training in economic problems and in public speaking. Not infrequently prominent men address the meetings upon topics of general interest.

Labor organizations are social and fraternal bodies. Dances, entertainments, and other social gatherings are held under the auspices of unions and are well conducted. The annual dance of the Longshoremen's Union might not appeal to the taste of people in high society, but it is the best-conducted dance which the members of the union attend. The fraternal features consist of caring for a member in distress and paying funeral expenses when necessary. The fraternal features are more prominent in the older organizations. The International Typographical Union has a sanitarium for the care of its members who are afflicted with tuberculosis.

However, the chief object of labor unions is economic. An individual laborer is at a great disadvantage when disposing of his services. To an employer it makes no difference whether or not he employs a particular laborer, but it makes a great difference to the laborer. Labor resembles a perishable commodity and the laborer must dispose of his services promptly or lose his day's pay. The laborer is not always able to take his services to a better market either for lack of funds or because of home ties. The conditions under which he works may not be suitable but the individual laborer is often unable to offer an effective protest. Labor organizations make the bargain more equal. Employers may not need a certain laborer but they need labor. Organized labor can make its demands as a unit and can be supported by union funds if employers

fail to offer terms which are considered reasonable. *Collective bargaining* is one of the chief advantages of labor unions. The political power of labor organizations may be exerted toward betterment of working conditions. As an individual the laborer has little political power, but as the member of an organization his political power may be greater than that of his employer.

The Rise of Labor Organizations in the United States.—Although there were many labor organizations in the United States before then, labor organizations did not become important until about the middle of the last century. There was not much need for them. When good public land could be secured easily, dissatisfied wage-earners could take to farming and become landlords and capitalists.

The International Typographical Union was organized in 1850, though the word "International" was not used until 1869. Other unions followed, and by 1870 there were about forty labor organizations in the United States.

The Noble Order of the Knights of Labor was organized in Philadelphia in 1869. The Knights of Labor planned to include all labor in their organization. The order was at first secret, but this feature, being opposed by members of the Roman Catholic Church and others, was abolished in 1870. The Knights of Labor advocated abolition of speculation in land, compensation for injuries received by laboring men while employed, a progressive tax on incomes and inheritances, an eight-hour day, government ownership of railroads and telegraph lines, and postal savings-banks. It also expected the abolition of the wages system through the introduction of co-operative factories managed

and owned by working men. The organization numbered about 100,000 workmen in 1885. In this year the Knights conducted a successful strike against the Gould railroad system, which resulted in an increase of membership to 600,000 in 1886. The strike of 1885 was memorable because of the introduction of *sabotage*, though the name was of later origin. The particular kind of *sabotage* employed was the disabling of locomotives by removing vital parts. The strike of 1885 was won by violence, and, though it immediately resulted in increased membership, it ultimately wrecked the order. Radicals got in control and ordered unnecessary and unwise strikes. As a result the Knights lost support.

In October, 1886, the Knights of Labor declared war on the American Federation of Labor. From this time its decline set in and the order disappeared in the late nineties.

The American Federation of Labor.—The American Federation of Labor was organized in Pittsburgh in 1881, though the name was not adopted until 1886, at a convention held in Columbus, Ohio. The unit of representation in the American Federation of Labor is the national union, local unions not being represented unless they have no national organization. Samuel Gompers was elected president in 1886, an office which he has held—with the exception of one year—to the present time. The federation has avoided meddling in politics and has steered clear of radical and revolutionary theories. This policy has been successful and its membership in 1921 was over 4,000,000. The American Federation of Labor from its beginning has favored an eight-hour day and has insisted upon the prin-

ciple of collective bargaining. At the annual convention held in Atlantic City in 1919 a program was adopted including the following demands:*

National legislation to prevent child labor;
State and national regulation of corporations;
Government ownership of docks and wharfs;
No employment agencies to be operated for profit;
Public-service utilities to be owned by the government or to be regulated by the government in the public interest;
Public aid in home-building and housing;
Restriction of immigration;
Right of public employees to collective bargaining;
Equal pay for equal work by men and women;
Opposition to militarism;
Public ownership of waterways and water-power.

The Industrial Workers of the World.—The Industrial Workers of the World was organized in Chicago in 1905. This was a merger of several radical labor groups which opposed the American Federation of Labor because the Federation was regarded as too conservative and because it had neglected the unskilled laborers. The I. W. W. seeks to organize all the workers of each industry into "one big union" and to unite these unions in one great national organization. The I. W. W. is opposed to the wages system and cares nothing for bargaining with capitalists; it declares that the aim of labor should be to possess the industrial plants of the country and operate them for the benefit of the workers. The I. W. W. therefore advocates what is called *syndicalism* in Europe and this

* For a summary of this program, see Mary Beard's *American Labor Movement*, pp. 163, 164.

is a form of socialism. During the Great War the I. W. W. was disloyal in word and deed, and as a result their leader, W. D. Haywood, was convicted of violating the espionage act. The order lost in membership and reputation and is now relatively unimportant.

The Loyal Legion of Loggers and Lumbermen.—The lumber industry of the Northwest was once a stronghold of the I. W. W. Conditions of labor were far from what they should have been and the lumber camps offered a fertile field for radical organizers. Nowhere were the excesses of the I. W. W. more in evidence than here. Now all is changed through the efforts of the Loyal Legion of Loggers and Lumbermen. This organization, familiarly known as the 4LL is a new type of labor organization. The unit of membership is a local and all persons working for the same employer may be members of the local as can the employer himself.

The employer, superintendent, foreman, skilled laborer, common laborer, and clerk, are all welcome to membership and are equal in the organization. The initiation fee is one dollar and the dues are twenty-five cents a month. Employers contribute a sum equal to that of all the membership dues of their employees who are members of the Legion. An employer also files a bond as a guarantee that he will abide by the rules of the order. All questions of wages, hours of labor, and conditions of labor are settled by elected representatives of all members of the industry. There is an "employees' conference committee," consisting of a chairman, vice-chairman, and secretary of the local. It is the duty of this committee to confer with the operator or the operator's agent on all differences of local concern

and to endeavor to settle these differences in a manner satisfactory to all parties. There is a distinction between "matter of local concern" and "questions of general import." The former are all "questions affecting the living, working, and recreation conditions of each local," unwarranted discharge of laborers, and the like. "Questions of general import" are those affecting the industry by districts or as a whole, such as wages and hours of labor. Superior to the conference committee of the local is the district board. There is a district board in each of the twelve districts into which the lumber region of the Pacific Northwest is divided.

The district board consists of four employees, two millmen and two loggers, chosen by the employees of the district. The decision of the district board is final on matters of local concern. If the district board cannot reach a decision the case is referred to the board of directors.

The board of directors is the highest court of appeal of the Legion. It is composed of the employees' district board chairmen of each district and the operators' district board chairmen. This board settles all appeals and "matters of general import." In an article published in the *Atlantic Monthly* (February, 1921), Professor R. P. Boas says:

"The Legion has accomplished six distinct things. It has made calm and steady production possible in an industry which three years ago was thoroughly disorganized. It has placed wages on the highest scale in the United States for the work done, and has established the eight-hour day. It has stabilized wages on a minimum uniform scale, with an allowance for reward for superior

skill and initiative. It has made striking progress in improving sanitary conditions in the industry.

"The sanitary officer reports substantial improvements in conditions. A general clean-up has taken place in 84 per cent of the operations. Eighty-six per cent of the camps have bathing facilities. . . . The forty-eight complaints of bad sanitary conditions made in 1919 were all adjusted. It has begun, through an organization of the wives of the 4LL men, called the Ladies Loyal Legion, the development of the community life of the lumber camps and mill towns. At last reports, nearly thirty locals had been organized. Finally, it has been carrying on a persistent campaign of education among employers and employees in the spirit of harmony, co-operation, and fair play."

Summary.—Labor organizations have become an important factor in modern industry. Through organization laborers have received social and educational advantages, but the economic interests have been more important.

The American Federation of Labor is the largest labor organization in the world. Its members, with few exceptions, are loyal to America and do not seek to overthrow our institutions or to regard themselves as the only persons worthy of consideration.

The I. W. W. was formed in 1905 by a merger of several radical groups of working men. It is socialistic in its teachings and methods. It makes war on the present industrial order and does not hesitate at *sabotage* and other illegal acts. On account of its record of disloyalty during the war, it has declined in numbers and is now of little influence.

The Loyal Legion of Loggers and Lumbermen, recently organized in the lumber regions of the Pacific Northwest, is a new type of labor organization. It includes employers as well as employees among its members and seeks the common welfare. Through its influence wages have been increased, working conditions improved, and industrial peace has prevailed where warfare was the rule when the same regions were strongholds of the I. W. W.

TOPICS FOR DISCUSSION, DEBATE, AND SPECIAL REPORTS

1. Which of the demands of the American Federation of Labor as given in this chapter do you approve? Why? Do you disapprove of any? Why?
2. What labor organizations exist in your city? What have they done to better the lot of working men?
3. What arguments can be made against labor organizations? Are these arguments valid?
4. Labor organizations among women have not, as a rule, been so successful as among men. Give some reasons for this fact.
5. A prominent labor leader in New York City was recently sent to the state prison at Sing Sing. His chief offense was in holding the menace of strikes over employers and compelling them to pay him in order to escape from strikes. How can labor organizations avoid such leadership?

CHAPTER XXVIII

INTEREST

Why Interest is Paid.—Interest is a sum of money paid for the use of money or capital. Usually interest is regarded as a return for the use of money. Much more frequently money is not desired, but the goods which it will purchase are desired. For example, a manufacturer borrows $10,000 with which to buy machinery and pays interest at the rate of 6 per cent a year. With the aid of the machinery he can produce goods which will pay all expenses and yield him a profit. Interest is paid for the use of capital, therefore it goes to the owner of capital, whether he puts it to work or lends it to another.

Sometimes capital is borrowed directly. A man may hire a building, machinery, or a truck. The payment for such a loan is popularly called rent, but it is really interest. Rent is defined by economists as payment for the use of land; the payment for the use of capital is interest. When capital is borrowed in the form of material instruments of production, these goods must be returned in as good condition as when borrowed, or the owner is entitled to payment for depreciation. Interest does not pay for depreciation.

Interest as a Reward for Waiting.—Capital has been defined as that part of the product of industry which is used to produce more goods. Capital is the result of

saving. The owner of wealth has two options; he may consume it, or he may put it to work. If he puts it to work, he sacrifices present pleasure for a future reward. Most people prefer present goods to future goods and so a premium has to be paid to induce them to forego present enjoyment. This reward for waiting is interest. No one wishes to part with $1,000 to-day merely on the assurance that he will receive $1,000 a year from to-day. The guarantee or even the belief that he will get back his $1,000 with $60 interest at the end of the year induces him to make the loan.

Pure and Gross Interest.—Pure or net interest is the amount paid for the use of capital when there is no risk of loss. The interest on bonds of the United States is pure interest. Every one knows that both principal and interest on these bonds will be paid. Loans made to private persons have an element of risk. The individual may fail in business or may die. Loans to corporations are not without risk. The corporation may become bankrupt. No one will loan where risk is taken unless he receives some compensation for the risk. The greater the risk the greater the compensation demanded.

The Rate of Interest.—The rate of pure interest is fixed by demand and supply. If capital is in demand, rates of interest will rise and this will encourage savings. For example, when the rate of interest is 4 per cent, capital is not in much demand. Some people will consider 4 per cent an inducement for savings—to others it is not a sufficient inducement. Let the rate of interest rise to 6 per cent or 7 per cent and savings increase. It is apparent that at any time the rate of interest is higher than necessary to

induce many people to save. It is just enough to satisfy persons who would spend their savings if the interest rate were lower. These persons are known as the marginal savers.

Long and Short Time Loans.—Loans for a year or more are long-time loans. What is wanted in long-time loans is capital, not money. Interest on long-time loans does not vary with the amount of money in circulation. For example, if the amount of money in circulation is such that a piece of machinery can be bought for $10,000, a 6-per-cent rate of interest will produce $600 a year. If the amount of money in circulation is doubled and other things remain the same, $20,000 will be required to buy the machine and a rate of 6 per cent will return the lender $1,200 per year, which will be equivalent to $600 when the purchasing power of money was twice as great.

With short-time loans, or more particularly demand loans, the rate of interest varies with the amount of money in circulation. If a man borrows money and pledges stocks as security and must pay the loan or lose his stock, he wants money and he will have to pay for it according to the amount of money available. The great market is for demand loans or "call loans," as they are usually designated. A call loan is payable on demand. It is secured by stocks or bonds and is almost always made by a bank or broker. The rate of interest on call loans differs from day to day and has no relation to the rate of interest on long-time loans. Under the law of New York call loans may yield any rate of interest without becoming usurious. "Call loans" are chiefly confined to those trading on the stock exchanges.

Usury Laws.—Exorbitant or illegal interest is called usury. All the states except Colorado, Maine, and Massachusetts (except on loans less than $1,000) have laws fixing a maximum rate above which interest charges cannot legally be collected. The penalty for usury in some of the states is merely the loss of the excess of interest, in others it is the loss of all interest. Only in Arkansas, New York, and California, is the penalty a heavy one. In the two former states the penalty is loss of both principal and interest and in California the penalty is $500 fine or imprisonment, or both. Usury laws are not always enforced and are often evaded by charging a "bonus" for making a loan or charging an excessive sum for legal services, such as the drawing up of papers. The usury laws are for the protection of borrowers and are presumed to protect them against lenders who would take an undue advantage of their need for money. The usury laws do afford some protection and are valuable in fixing the rates of interest to be allowed on funds in the custody of the courts.

Interest Not the Only Inducement to Saving.—The desire to profit by savings is a great inducement to thrift. It is not the only inducement. There would be savings if there were no such thing as interest. The conviction that future income will be less than present leads people to provide for the future. A thousand dollars that now might be spent on luxuries may at some future time be needed for necessities. Wise people would save even if they had to rent a safe-deposit vault or pay a bank for keeping their money.

Summary.—Interest is paid for the use of capital. The owner of wealth may consume it or may put it to work.

If he puts it to work there is a sacrifice of present pleasure for future reward. From one point of view interest is a reward for waiting. Gross interest includes payment for risk. There is no risk in lending money to the United States, but in lending money to most persons or corporations there is an element of risk. The owner of capital must be paid for the risk he is taking or he will not part with his funds.

The rate of pure interest varies with demand and supply. If there is a great demand for capital, the rate of interest will rise. A rise in the rate of interest induces more people to save and thus increases the amount of capital.

Generally, capital is desired by borrowers and not money. But in short-time loans money is often wanted. Call loans are payable on demand and the rate of interest varies with the demand and supply of money. The rate of interest on long-time loans does not vary with changes in the amount of money in circulation.

Although interest is an inducement to saving, prudent people would save even if there were no such thing as interest. Savings provide for future wants.

TOPICS FOR DISCUSSION, DEBATE, AND SPECIAL REPORTS

1. Aristotle said that interest is immoral since money does not beget money. In Aristotle's time there were no opportunities to invest money such as exist to-day, and borrowers of money generally sought loans in order to provide funds for meeting some misfortune. Interest was also condemned by the church in the Middle Ages. Show why interest is moral now. Show the modern difference between interest and usury. When may a high rate of interest be immoral?

2. Why is the rate of interest for loans secured by mortgages on farm lands higher in North Dakota than in New York?
3. Some socialists would abolish interest. What would be the result of the abolition of interest?
4. Savings-banks, as a rule, paid to depositors 4 per cent during the year 1920–1921. A larger rate of interest could be secured by investing in Liberty Bonds or in stocks and bonds of many corporations. Why should any one deposit money in savings-banks under these circumstances?
5. What are the advantages of the postal savings-banks in encouraging savings?
6. Some parents think that school savings-banks are not worth while. Do you agree with them? Why? What may be the benefits of school savings-banks?

CHAPTER XXIX

PROFITS

Nature of Profits.—Rent, wages, and interest must be paid before the organizer of a business can get any return for himself. In other words, they are expenses of production. After all expenses are paid, whatever remains is profits. The person who organizes a business may or may not take an active part in conducting that business. If the organizer furnishes his own capital, uses his own land, and himself conducts his business, he must deduct interest, rent, and wages for himself before he can consider that he has made a profit.

The Entrepreneur as a Risk Taker.—The entrepreneur is the person who is responsible for conducting a business. If the business succeeds he receives profits; if it fails he is the loser. For example, a man decides to open a creamery. He secures capital, rents land, constructs a building, hires men, and begins to operate the creamery. If the business succeeds he makes profits. His was the risk and his is the reward.

The work of the entrepreneur may be divided between two or more men. In this case the form of organization is usually a partnership or a corporation. Every member shares the risk and receives a part of the profits, even though the active manager of a business may not be a part

owner and may receive a salary. The wages of the manager depend upon profits. He will not retain his position unless there are profits. What is paid to the business manager may be considered wages and is often called wages of superintendence, or may be considered necessary profits, since the business must produce enough to pay for such services.

The Nature of Business Risks.—In all business there is risk. There may be unfavorable weather, a war, strikes, an epidemic, a fire, a business depression, or a number of other calamities that affect business. For example, in farming there are drought, frost, insects, and blights. These are risks. Again it may be difficult or impossible to secure labor. Prices for produce may be so low as to fail to meet expenses. On the other hand, through a combination of favorable conditions, the farmer may make exceptional profits. Although the prudent farmer anticipates risks and provides against them, risk can never be wholly eliminated.

In the manufacture and sale of clothing, fashions may so change as to favor one line of goods at the expense of another, or stocks may be held in excess of demands. Every business has its risks. Since risk-taking is necessary to the conducting of business, it is a legitimate hazard and has nothing in common with gambling. Nothing is added to the wealth of a country by gambling. Those who take risks are constantly adding to industry.

Classes of Entrepreneurs.—Entrepreneurs differ in ability. The highest class is composed of men of great ability with keen powers for analyzing business conditions, who see opportunities and are not afraid to follow

their judgment. Marshall Field, A. T. Stewart, Stephen Girard, H. H. Flagler, F. W. Woolworth, J. J. Hill, and Cyrus McCormick are examples of such entrepreneurs. The large profits these men made were not the results of good fortune but were chiefly the result of rare business ability.

A second class of entrepreneurs is composed of men of ability, but not of genius. This is a much larger class than the first one. A successful business man, who has built up a large department store would be an example of this class.

To the third and most numerous class belong most business men. Except under unusual conditions, their profits are not large. Such men can generally secure the same income whether managing their own business or working for another.

Differential Profits.—Some business enterprises pay merely expenses. They continue in operation either because their capital is of such a nature that it cannot be diverted into another business or because there is a prospect of a change for the better in the future. Many street railroad companies during the war operated at a loss, but they could not discontinue business without destroying their capital and they hoped for better conditions.

Business enterprises whose capital may be diverted to more paying uses will not operate long unless they can pay all expenses and yield sufficient profits to make it worth while to continue. These enterprises are on the margin. A business which yields more than marginal profits may be said to have differential profits. Good

managerial ability is a prime factor in differential profits. A good business man must see that purchasing is done to advantage as well as selling; he must have his place of business advantageously situated; he must know when credit can be granted and when withheld; must see that machinery is properly used and that the employees do their work well. Whether a business man does these things himself or hires others to do so for him does not change responsibility.

Extraordinary Profits.—A new line of industry which produces something for which there develops a great demand may for a time yield extraordinary profits. The first bicycle manufacturers in the United States were very successful. Every one wanted to ride. Prices were high and demand exceeded supply. Extraordinary profits seldom last. Others go into the business, and supply is increased and prices fall. The unusual profits in the bicycle business lasted only a few years. Some monopolies, on the other hand, may yield high profits indefinitely. The Standard Oil Company has produced unusual profits since the time of its organization.

Extraordinary profits may result from an increase in the price of goods. If a dealer has on hand sugar purchased at six cents a pound and the price rises to twenty-five cents he will have extraordinary profits. Of course extraordinary losses would follow if the course of events were the opposite.

War Profits.—In many lines of business profits increased very greatly during the World War. The following table, taken from Professor David Friday's *Profits, Wages and Prices*, shows these profits:

NET INCOME OF ALL CORPORATIONS

Year	Net Income Before Taxes	Federal Taxes	Net Income After Taxes
1909	$3,125,481,000	$20,960,000	$3,104,521,000
1910	3,360,251,000	33,512,000	3,326,739,000
1911	3,213,706,000	28,583,000	3,185,123,000
1912	3,832,151,000	35,006,000	3,797,145,000
1914	3,710,600,000	39,145,000	3,671,466,000
1915	5,184,400,000	56,973,000	5,127,427,000
1916	8,765,900,000	171,805,000	8,594,095,000
1917	10,730,360,000	2,142,446,000	8,587,914,000
1918	*9,500,000,000	*3,200,000,000	*6,300,000,000

* Estimated.

The figures given above show that the highest profits were in 1917. Since that year they have been declining. War industries, which brought large profits, ceased with the armistice, but high profits continued until 1921. During and after the war the profits of various industries differed widely. The net earnings of national banks, as reported to the comptroller of the currency, increased from $160,980,084, or 9.06 per cent of capital and surplus in 1913, to $194,321,000, or 10.52 per cent in 1917, and to $212,332,000, or 11.09 per cent, in 1918. The earnings of mining and manufacturing companies in 1917 were reported as 330 per cent higher than 1913, which was itself a prosperous year. The reports of mercantile establishments show greater profits than in any line of business, except mining and manufacturing. Public service corporations failed to make satisfactory profits, because their expenses were increased while the charges for the services they rendered, fixed by law, remained the same or were slightly increased.

The popular opinion that extraordinary profits were earned during the war is justified by the facts. The war brought about conditions which made prices increase more rapidly than the rise in wages and the cost of materials. Great demands from Europe for goods of all kinds and the transformation of thousands of industrial plants from production of goods for the civilian population to production of munitions of war resulted in many cases in a shortage of supplies. In cases where there was no shortage the people thought there was or would be, and the effect was the same as an actual shortage. Hoarding of goods by speculators added to the difficulty. Under the circumstances every one wanted to buy and prices steadily rose. Monopoly conditions existed in most industries and prices were fixed at the rates which would bring the largest returns, the only exception being those goods whose prices were regulated by law.

From the experience, not only of the United States but also of other belligerent and neutral nations, it may be said that the ordinary economic forces which limit profits are suspended in times of great wars and most industries find it possible to charge monopoly prices. These conditions remain until war conditions cease and industries return to peace conditions.

Summary.—Profits are a surplus after all the expenses of a business have been paid. All business has risks. The entrepreneur is a risk-taker. He must make profits or lose his position. Entrepreneurs differ in ability. Those who have unusual ability may produce unusual returns in the form of differential profits. Extraordinary profits may result from industries which supply some new article, or

through fortunate purchases. Except in case of monopoly extraordinary profits seldom last long. The World War brought about exceptional conditions and there were unusual profits to many. With a return to peace conditions profits gradually became normal.

TOPICS FOR DISCUSSION, DEBATE, AND SPECIAL REPORTS

1. The Woolworth Building in New York City, called "The Cathedral of Commerce," was built from the profits of five and ten cent stores. The profits on each sale were small but there were millions of sales. Why could Mr. Woolworth be regarded as an entrepreneur of exceptional talents?
2. Russell Sage once remarked that the secret of making money in stocks and bonds is in buying when every one else wants to sell and selling when others want to buy. Why do so many people want to buy at certain times? What were the results of the mania for buying sugar during the Great War?
3. What effect did the Great War have upon the profits of the street railroads of your city? Why?
4. What lines of business yielded extraordinary profits during the Great War? Why?
5. Why do profits tend to be the same in all industries? What prevents the rate of profits from being the same?

CHAPTER XXX

SOME PROPOSED RADICAL ECONOMIC CHANGES

The Single Tax.—In the year 1879 Henry George published *Progress and Poverty*. His main object was to show that rent tends to increase while profits and wages tend to diminish. Progress and poverty, he maintained, go hand in hand. To remedy the alleged evil, he advocated a single tax on land which would be equal to the rent of the land. All other taxes were to be abolished. The results, he thought, would be to "raise wages, increase the earnings of capital, extirpate pauperism, abolish poverty, give remunerative employment to whoever wishes it, afford free scope to human powers, lessen crimes, elevate morals and taste and intelligence, purify government, and carry civilization to nobler heights."

His arguments in favor of the plan were twofold. In the first place he affirmed that land is a natural product and not the result of labor, and that every person has a natural right to the occupation of land. "Let the parchments be ever so many, or possession ever so long, natural justice can recognize no right in one man to the possession of land that is not equally the right of all his fellows." "Though his titles have been acquiesced in by generation after generation, to the landed estates of the Duke of Westminster the poorest child that is born in London has just as much right as has his eldest son. Though the sovereign people of the State of New York consent to the

landed possessions of the Astors, the puniest infant that comes wailing into the world, in the squalidest room of the most miserable tenement house, becomes at that moment seized of an equal right with the millionaire."

The quotations given above illustrate the natural-right claims made in *Progress and Poverty*. They are not arguments but statements of opinion. To the natural-right opinion a conclusive answer is that private property in land exists because it is regarded as beneficial to most people. In order to show that private property in land should be abolished, it must be proved that some other plan would be better. Henry George tries to prove this by three main arguments:

1. Rent is an "unearned increment." The owner of land need merely hold his land and benefit by the rise in rent. This rise in rent is not due to any labor on the part of the owner, but is due to growth in population and to public improvements. It is therefore just and fitting that society should take what it creates. An example of "unearned increment" is afforded by the Astor property in New York City. John Jacob Astor, early in the nineteenth century, invested his earnings in land on Manhattan Island. His descendants now enjoy annually millions of dollars of income from this land.

2. A second argument is that if land were taxed to its full rental value, every one owning land would be obliged to use it or abandon it to others who would use it. No land could be held for speculative purposes. Not only would land be thrown open to use, but a tax that would take all rent would result in compelling landlords, who live wholly upon the proceeds of rent, to engage in some

useful occupation and would thus increase production of wealth by abolishing an idle class.

3. The final argument is that a single tax on land would stimulate all industry through abolishing all other forms of taxation. This, we are told, would result in such general prosperity as to abolish poverty.

Arguments against the Single Tax.—Those who oppose the single tax upon land say that such a tax would be unjust. It would destroy the selling value of the land and thus deprive the landowner of his property without his consent. The man who has invested $2,000 in a lot for his home would find himself deprived of the value of his investment, but his neighbor who has invested $2,000 in the stock of some monopoly would pay nothing in taxes on his investment.

Another objection is that land is not the only thing that yields an unearned income. A fortunate investment in the stock of some corporation may result in a profit of several hundred per cent. This is an "unearned increment" and it would not be fair to tax one "unearned increment" and let another go scot-free. Then, again, land does not always rise in value. It sometimes falls. Changes in the character of the population, the building of a hospital or jail, or changes in lines of transportation are among the causes which lower the value of land. This lessening of value may be called "an unearned decrement," and the owner of land which has fallen in value might claim that he is entitled to compensation for his loss.

It should also be remembered that the rise in the value of land is not entirely an "unearned increment." The land policy of the United States has been to encourage

actual settlers upon the public domain, and the United States has given the settlers the land, or sold it to them for small payments, in order that the country may grow. The settlers cleared the land and made great sacrifices in the hope of future reward. Some of them did reap the rewards of their sacrifices, but some did not. Where success was obtained, the land was usually improved by its owner. Draining swampy land or fertilizing sterile land, or clearing away stones and underbrush, is increasing the value of land by labor, and labor is entitled to its reward.

The single tax would be unwise because it would make impossible other desirable taxes. For example, a protective tariff might be desirable, or a tax on inheritance might be considered a suitable method of limiting inheritances.

A most serious objection to the single tax lies in its inelasticity. The returns from a single tax on land might be expected to rise in an advancing community, but there is no way in which such a tax would meet the demands for an increased revenue which would be occasioned by war or the need of some great improvement.

Anarchism.—All exercise of authority is objectionable to the anarchist. He would abolish government and the present methods of business whether conducted by individuals, associations, or by the government. He assumes that men would do what is right if all compulsion were removed. This is not true. There are persons in every community who must be restrained from evil actions. Anarchy would bring about a reign of terror, in which the strong would profit at the expense of the weak, and the depraved would do as they pleased. The anarchists think that, compulsion being removed, men would unite in co-

operative groups for the production of wealth and would share the proceeds among themselves in a manner mutually satisfactory. However, unless men were perfect, there would be sure to arise disputes in regard to the amount of work each should perform and in regard to the share each should receive. Nor would any one care to work unless he could be sure that there was some guarantee that he could retain property after he had secured it. Contrary to general opinion, there are some peaceful anarchists, who regard anarchy as a possibility in the far-distant future. The dangerous anarchist, who advocates violence in overthrowing all governments, is an enemy of society and must be suppressed as such.

Communism.—Communists desire the common ownership of capital and equal distribution of the proceeds of industry among the workers. Long ago Aristotle said that a fatal objection to communism is that the business of all is the business of none. Any economic system that does not reward people in proportion to their abilities and industry can never succeed.

There have been many communistic experiments in Europe and America. Most of them have failed and the survivors are destined to fail. Some have failed because their founders had peculiar religious beliefs and when the founders died their children refused to accept the faith of their fathers. Others failed because their members could talk communism but found it irksome to practise it. However, the chief reason for failure is that communism is not satisfactory to most people at any time and does not long prove satisfactory to any but a few.

Among the many communistic experiments in America,

that organized in 1848 by Mr. John H. Noyes deserves mention. The community was started in Vermont, but soon moved to Oneida, New York, where it existed under a communistic plan until 1879, when its members abandoned communism and organized as a joint-stock company under the name of the Oneida Community.

Another communistic experiment that attracted wide attention was organized by Mr. Robert Owen at New Harmony, Indiana. Owen came to this country from England in 1822. He had wealth, enthusiasm, and ability. If communism were ever to succeed this was its opportunity. It failed after two years.

Socialism.—Socialism and anarchism have little in common. The socialist would increase authority, while the anarchist would abolish it. The anarchist considers socialism as "state capitalism," and he is opposed to all capitalism.

There are many forms of socialism, but they all agree in certain fundamentals. These are the common ownership and operation of the chief material means of production. Under a socialistic state most persons would be employed by the government, would be paid wages, not necessarily equal, and could spend them as they wished, except that they could not establish factories or other agencies for the production of wealth. Most socialists would not object to such small matters as a private person selling a part of the products of a garden, selling a few eggs or doing odd jobs in his spare time. Some socialists would prohibit all private production of utilities, but the tendency among socialists is to consider small matters as of no consequence. Mr. John Spargo, an American socialist,

describes the program of the most moderate socialists, as follows: "The new society must include at least the following: (1) Ownership of all natural resources, such as land, mines, forests, oil-wells, and so on; (2) operation of all the means of transportation and communication, other than those of purely personal service; (3) operation of all industrial production involving large capital and associated labor, except when carried on by voluntary, democratic co-operation; (4) organization of all labor essential to the public service, such as the building of schools, hospitals, docks, bridges, sewers, and the like; the construction of all the machinery and plants requisite to the social production and distribution, and of all things necessary for the maintenance of those engaged in such public service as the national defense, and all who are the wards of the State; (5) a monopoly of the monetary and credit functions, including coinage, mortgaging, and the extension of credit to private enterprise. With these economic activities undertaken by the State, a pure democracy differing vitally from all the class-dominated states of history, private enterprise would by no means be excluded, but limited to an extent making the exploitation of public interests and needs for private gain impossible." Most socialists object to Spargo's program as leaving too much to private initiative.

Arguments for Socialism Examined.—The method of socialists is to attack the present industrial order. They claim that "nine-tenths of the wealth of the nation is controlled by one-tenth of the people" and that every year shows a greater concentration of ownership of wealth. Such statements have frequently been made, but not

proved. The facts, as disclosed by the income-tax returns of 1918, are different. The returns of net income show that people with incomes of $5,000 or less received 59 per cent of the total incomes reported, and those whose incomes were over $5,000 a year received 41 per cent. It might therefore seem that though only 10.83 per cent of those reporting had incomes of over $5,000 their total incomes were 41 per cent of the net incomes reported. However, this is not the whole story. The total net incomes reported amounted to less than $16,000,000,000 and this is certainly less than the annual income produced by the industries of the United States. The difference between the amounts reported and the actual product of all industry is explained by the fact that income taxes were paid by only 4,425,114 persons, or about 1 in 22 of the population. A large number of people whose income was small were exempted from making returns and many others made no returns. It is easier for a person of small income to escape the income tax than for a person of large income. With these facts taken into consideration, it is estimated that 89 per cent of the total income goes to those whose incomes are less than $5,000. This does not show a great concentration in the ownership of wealth. So far as the laboring classes are concerned, wages both as measured in money and in purchasing power have steadily increased in the last 40 years, a fact which the socialists cannot deny.

The socialists also claim that labor does not get the full product of its toil but is the victim of exploitation. For example, if a laborer produces with the aid of a machine articles which sell for $500 and the laborer receives in

wages $300 the socialists say he is robbed of $200. The owner of the machine, they say, should be the people. This does not prove that the laborer would himself receive more under socialism, and he might get less. The socialist forgets that saving was necessary to produce the machine, that the inventor and maker of the machine are entitled to their rewards, and that the manager of the industry and many others must have some consideration. Moreover, if a dozen men are working to produce one article, who can tell what part of the value of the article is produced by any one man? Socialists talk about distributive justice, but fail to agree among themselves as to what is justice.

Another criticism of the present industrial order is concerned with the evils of competition. Under the competitive system there is much waste. For example, a half dozen milk wagons go over a route which might be served by one. Competition has more serious evils than waste. It causes men to adulterate food, use child labor, and sometimes oppress workmen. The standard of the worst, it is alleged, tends to become the standard of all employers.

There are many faults in the present industrial system, but legislation can remedy most of them. Will socialism improve matters? Some industries might be organized under the socialistic plan, but not the most important of all American industries, that of farming. The competitive system gives an incentive to the farmer to rise early and work late and he does not consider himself a victim of exploitation. Would socialism furnish an incentive equal to self-interest? Most people think not. His income would not depend upon his own work. His work being isolated could not be supervised unless there should be an

inspector for each farm and a corps of inspectors for the inspectors. The endeavor to socialize the farms of Russia failed. There is every reason to suppose that such attempts will always fail.

A favorite argument of the socialist is that under the present industrial régime many people have no chance. Wealth and poverty depend upon the accident of birth. Some start life with great advantages; others have little or no chance of success. There is truth in this statement, but less truth than ever before. Child labor is being abolished, parks and playgrounds give a better life for the young, tenement-house reform has done much to benefit housing conditions, intoxicating liquors will soon be unobtainable for beverage purposes, every child can now obtain an education, and almost every boy or girl who really so wishes may obtain a college education. Socialists picture the socialistic state in too bright colors and see only the gloom in the present. America is still the land of opportunity and was never more so than to-day.

Summary.—In this chapter we have examined three radical programs for economic changes. Henry George was not a socialist. He believed in the present industrial system, but thought it needed the single tax to make it perfect. His chief arguments are: (1) Rent is an unearned income; (2) taxing land to its full rental value would prevent withholding land from use for speculative purposes; (3) by abolishing all other taxes industry would be promoted. We have seen that rent is not the only "unearned increment" and hence it would be unfair to take all of the rent of land and not tax other unearned incomes. Moreover, much of the value of rural land has

been made by labor and is earned. The single tax would abolish desirable taxes. It would also be inelastic.

Anarchism is a radical theory based upon the belief that all exercise of authority by one person over another is evil. It is a philosophy of extreme individualism. Compulsion is necessary in order to preserve order and to protect the weak from the strong and the honest from the dishonest. Anarchism would produce a reign of terror, unless all men were perfect.

The communists advocate the common ownership of most goods and equal distribution of the proceeds of industry. The fatal defect of communism is that it gives no incentive to the more capable and the more industrious members of society. It also fails to recognize that men like to have property which is their own.

Socialists desire the common ownership and operation of factories, railroads, stores, and other means of producing wealth. The socialists would permit private property in most goods for personal use. The claim of socialists that "the rich are growing richer and the poor are growing poorer" is proved false by the income-tax returns. The socialists claim that the present industrial system is evil, but they fail to see that there is much good in it. The evil may be eliminated to a great extent. The socialists do not agree upon what is distributive justice. Some industries might be socialized, but not farming. The socialists are too pessimistic in regard to the possibilities of the present order and too optimistic in regard to socialism.

TOPICS FOR DISCUSSION, DEBATE, AND SPECIAL REPORTS

1. What land in your city has risen in value during the last ten years? What land has fallen in value? What caused the changes in value?
2. Give the history of some communistic experiment in America.
3. Compare socialism and anarchy.
4. What do you consider the strongest point in favor of socialism? Why? What do you consider its weakest point? Why?
5. Is our industrial system chiefly good with a few bad spots or chiefly bad with a few good spots? Name some of the bad and some of the good features.
6. What unearned increments, other than land values, exist in the United States?

CHAPTER XXXI

PUBLIC FINANCE

Public and Private Finance Compared.—Public finance is that branch of economics which deals with the income and expenses of government. Public finance differs from private finance in three important particulars: (1) The income of a government should be so arranged as to meet its necessary expenses. Individuals should arrange their expenses to fall within their income; (2) a surplus for a government is not desirable—it indicates that more has been taken from the pockets of the people than was necessary for the needs of the government and invites legislative bodies to make reckless expenditures; (3) public finance rests upon the power of compulsion. A state may compel the people to contribute to its support.

The Budget.—A budget is a statement of probable revenue and expenditure and of financial proposals for the coming year. It is usual to speak of a budget submitted to a legislative body as a tentative budget; when it has been adopted it becomes the budget. The advantages of a budget for a government are similar to those for a family. Expenditures are fixed in relation to one another and a limitation is placed upon them.

Growth in Public Expenses.—Expenses of local, state, and national governments have increased vastly in the last quarter of a century. This increase is due both to in-

creased wealth and the additional duties which governments have assumed. The growth of expenditures for schools is an illustration. At first the people were content with primary education at public expense. Then were added the upper grades and the high schools. Now there are municipal colleges and universities, and most states support great public universities. Free text-books, better school buildings, and higher salaries for teachers have increased expenses, but the results have justified the expense. Similar increases in the expense for the preservation of order, protection against fire, guarding the public health, providing for the poor, and other necessary duties of government might be cited.

The expense of state governments has not increased so rapidly as that of local governments, but the increase has been considerable. The growth of state expenses has been in part due to the supervision which states have undertaken, usually by means of commissions, in looking after the interest of the people in banking, insurance, railroads, and other public utilities. State penal and charitable institutions have become increasingly efficient and increasingly expensive. With the coming of automobiles road-building has become a state function. The expenses of the national government have increased, both through doing its former work better and assuming new duties. The largest item in the budgets of all the great nations is in paying the expenses of past wars and providing for possible future wars. Unless the nations of the world can agree to settle their differences by some other method than war, expense for national defense will continue to increase.

The following table shows the expense of the United

States for the army and navy during the years immediately before the World War.

Year	Army	Navy	Total
1895	$54,500,000	$31,700,000	$86,200,000
1906	117,900,000	110,500,000	228,400,000
1914	94,300,000	140,700,000	243,000,000

The cost of and preparation for wars constitute the greatest expense of all national governments, because included in the expense for wars must be included interest on the war debt, pensions for soldiers, and provision for paying the debt. The net cost of the World War to the United States was fixed by Secretary Houston at $24,010,000,000.

Public Revenue.—Public income is obtained from a variety of sources. In his *Science of Finance*, Professor Henry C. Adams gives the following classification of public revenue:

- Direct revenue
  1. Public domains.
  2. Public industries.
  3. Gratuities or gifts, or treasure-trove.
  4. Confiscations and indemnities.
- Derivative revenue
  1. Taxes.
  2. Fees.
  3. Assessments.
  4. Fines and penalties.
- Anticipatory revenue
  1. Sale of bonds or other forms of credit.
  2. Treasury notes.

Public domains were once an important source of revenue and many foreign governments now derive revenue from forests, mines, and agricultural lands. The United States

has disposed of most of its old domains to settlers, but recently it has acquired large forest preserves, as have some of the states, and these will at some time in the future bring some revenue to the treasury. Public industries such as water-works, lighting plants, postal service, street railroads, and steam railroads bring substantial revenues to many foreign governments, but in the United States most of these services are performed by private corporations or are operated not for revenue but for service to the people. Special assessments are often levied upon land adjoining a projected improvement for the purpose of paying for all or a part of the improvement. This is reasonable and proper, as the adjoining property will increase in value as a result of the improvement. Part of the expense for parks, opening new streets, constructing sewers, and like improvements is often met in this way. For extraordinary expenses or for anticipating the receipt of taxes, public loans are extensively used by local, state, and national governments. However, taxation is by far the most important source of revenue. A tax may be defined as a compulsory payment to the government for general public purposes.

Adam Smith's Canons of Taxation.—In his celebrated work, *The Wealth of Nations*, Adam Smith gave four canons of taxation which have gained general approval. "The subjects of every State ought to contribute towards the support of the government, as nearly as possible, in proportion to their respective abilities; that is, in proportion to the revenue which they respectively enjoy under the protection of the State." This canon of taxation, once invoked in behalf of proportional taxation is now held to

justify progressive taxation. Proportional taxation is taxation at a fixed rate no matter how large the property may be, while progressive taxation requires a rate increasing with the amount of property. For example, to tax all incomes at 4 per cent would be proportional taxation, but to tax incomes of between $2,000 and $4,000 at 4 per cent and incomes of between $4,000 and $6,000 at 5 per cent and incomes of over $6,000 at 8 per cent would be progressive taxation. The justification of progressive taxation is that the burden of a tax of 4 per cent on $2,000 is as great as the burden of a tax of 8 per cent upon $7,000, in the former case $1,920 would remain after paying the tax, and in the latter case $6,440. The marginal utility of $80 to the average man having an income of $2,000 is as great as the marginal utility of $560 to the average man having an income of $7,000.

The second of Adam Smith's canons is self-explanatory. "The tax which each individual is bound to pay ought to be certain, and not arbitrary. The time of payment, the quantity to be paid, ought all to be clear and plain to the contributor and to every other person."

The third canon is that "every tax ought to be levied at the time, or in the manner in which it is most likely to be convenient for the contributor to pay it." For example, farmers would find November a convenient time as the crops are sold by that time. Convenience sometimes would be better secured by having taxes payable in two instalments, in May and November, than to have the entire amount payable in one instalment.

The fourth canon of taxation states in substance that a tax which costs much to collect is a poor tax. "Every

tax ought to be so contrived as to both take out and keep out of the pockets of the people as little as possible over and above what it brings into the public treasury of the State."

Direct and Indirect Taxation.—A direct tax is one which is levied upon the person who must finally pay it. Income taxes, poll taxes, taxes on land, and inheritance taxes, are examples of direct taxes. An indirect tax is one that is shifted from the person who first pays it to another. Customs duties, and taxes on articles produced within a country are examples of indirect taxes.

Direct taxes have advantages over indirect taxes. Indirect taxation seldom places the burden of a tax upon the people in proportion to their ability to bear it. For example, a tax upon sugar would be shifted to the final consumer and as people do not consume sugar in proportion to their wealth such a tax would be a greater burden upon the poor than upon the wealthy.

There is also a political objection to indirect taxation. It is a well-known fact that people are more interested in good government if they pay direct taxes. They may pay more in indirect taxes, but they do not know it. Paying taxes is a patriotic duty.

A third disadvantage of indirect taxation is that taxes of this sort are inelastic. The amount raised by indirect taxes cannot easily be changed from year to year. Increasing the tax may so reduce consumption as to cause the returns from the tax to grow less.

However, indirect taxes have some advantages. They enable people to pay taxes in small amounts, as a few cents are paid when buying tobacco, clothing, and other

articles. Indirect taxation is employed by every national government.

Taxes on Imports.—Until the adoption of the income tax, the customs duties were the largest items in the regular income of the United States. The revenue from customs in 1910 was $333,683,445 and the internal revenue was $289,957,220. In 1920 the customs duties gave a revenue of $332,902,650 and the income and profits yielded $3,944,949,288. There are three kinds of customs duties:

1. Specific duties. These are assessed on a unit of measure such as a pound, a yard, or a gallon. Specific duties may result in taxing articles of low value as high as those of large value. For example, if there is a tax of fifty cents on a yard of silk, it is a tax of 100 per cent on a yard worth fifty cents and a tax of 25 per cent on a yard worth two dollars. Specific duties are used to a limited extent by the United States.

2. Ad Valorem Duties. These duties are levied on the value of imported articles. Under this plan there is a great temptation to undervalue goods and the collectors must be men of ability and integrity. The United States extensively uses ad valorem duties.

3. Combination Duties. In the United States there is frequently a combination of specific and ad valorem duties. For example, under the tariff law of 1914 there is a duty of 30 per cent ad valorem and a specific duty of five cents a pound on dyes.

Excise Taxes.—Taxes levied upon articles produced within the country are excise taxes. The first excise tax was levied in 1791 upon distilled spirits as a part of the

plan of Congress for paying the national debt. The tax was unpopular and was soon repealed. The War of 1812 caused excise taxes to be levied upon sugar and distilled spirits, but these taxes were repealed in 1817. The Civil War caused excise taxes to be revived on an enormous scale. The words of Sydney Smith, employed forty years before, have been aptly applied to the excise taxes of the Civil War period.

"Taxes upon every article which enters into the mouth, or covers the back, or is placed under the foot; taxes upon everything that is pleasant to see, hear, feel, smell, or taste; taxes upon warmth, light, and locomotion; taxes on everything on earth, and the waters under the earth; on everything that comes from abroad, or is grown at home; taxes on raw material; taxes on every fresh value that is added to it by the industry of man; taxes on the sauce which pampers man's appetite, and the drug, which restores him to health; on the ermine which decorates the judge, and the rope which hangs the criminal; on the poor man's salt and the rich man's spice; on the brass nails of the coffin and the ribands of the bride."

Most of the excise taxes were abolished after the war, but the taxes on liquors and tobacco were retained and became an important item of Federal income. The Spanish-American War resulted in new excise taxes, which were abandoned soon after the war ended; and again at the entrance of the United States into the World War, excise taxation was revived on a large scale.

Income Taxes.—The first experience of the United States with income taxes came during the Civil War. The Income Tax of 1862 exempted incomes below $600 and taxed

those in excess of $600 at 3 per cent. Incomes exceeding $10,000 were taxable at 5 per cent. In 1864 the income tax law was revised and the new rates were 5 per cent on incomes between $600 and $5,000, with 7½ per cent on the excess of $5,000 up to $10,000, and 10 per cent on the excess over $10,000. The tax yielded $72,982,000 in 1866, but after that time a change in the law exempted incomes of less than $2,000 and lowered the rate. The tax was abolished in 1872. The necessity of providing additional revenue caused Congress to institute another income tax in 1894. Before the tax was collected the act creating it was declared unconstitutional by the Supreme Court. An income tax is regarded by most economists as the fairest of all taxes, because the amount of a man's income is the best indication of his ability to contribute to the expenses of the government.

The Constitution of the United States required that all direct taxes be apportioned among the states in proportion to their population. Since the ability to pay income taxes is not in proportion to the population of the states, no income tax could be passed by Congress which would be fair. Therefore the Constitution must be amended if the United States were to use this best source of revenue. After long consideration Congress submitted an amendment providing that "Congress shall have power to lay and collect taxes on incomes, from whatever sources derived without apportionment among the several states, and without regard to any census or enumeration." This amendment was duly ratified and was proclaimed a part of the Constitution on February 25, 1913. It was fortunate for the country that the income tax was in operation before the United States

entered the World War, as it became the chief source of income from taxation during the war.

The Revenue Act of 1918 exempts from the income tax unmarried persons with an income of $1,000 or less, and married persons, living with husbands or wives, having an income of $2,000 or less. There is an additional exemption of $200 for each child under eighteen years of age and an equal exemption for each dependent of over eighteen years of age, who is mentally or physically incapable of earning a living. The normal tax is 4 per cent on net incomes of $4,000 or less and 8 per cent on incomes in excess of $4,000. In addition to the normal tax there are surtaxes, the first surtax being 1 per cent on the amount by which the net income exceeds $5,000 and does not exceed $6,000. The surtax increases with the amount of income and reaches 64 per cent on all incomes between $500,000 and $1,000,000. Beyond $1,000,000 income the surtax is 65 per cent. Practically the same taxation applies to incomes of corporations as to individuals.

Inheritance Taxes.—Since 1916 the United States has had an inheritance tax. It is imposed on the estate as a whole, not on the shares of the heirs, irrespective of the relationship of the beneficiaries to the decedent. Amounts of less than $50,000 are exempt from the tax. Estates between $50,000 and $150,000 are taxed at 1 per cent and the rate increases until it reaches 25 per cent on estates exceeding $10,000,000. Most of the states have inheritance taxes also, with exemptions much less than those allowed by the United States.

Taxes on Real Estate.—Taxes on land and buildings are employed by state and local governments, but not by

the Federal Government. Real estate has always been a favorite subject for taxation, as it cannot be concealed. A difficulty arises because of the fact that the same assessment is used as the basis for both state and local taxation. Each local assessor endeavors to keep down the valuation of property in his district in order that it may pay a small state tax. It makes no difference in regard to the amount of the local tax whether the property is assessed at its full value or at half its value, as the rate is increased as the valuation drops, but it does make much difference in the amount paid in the state tax. Local assessors of one district compete with those of other districts in reducing valuations. To remedy inequalities between districts many states have state boards of equalization, but the task is beyond the ability of any board. A man who knows the value of real estate in a city, seldom knows the value of farm land or of land in a city or town in a distant part of the state. Economists generally agree that real estate should be taxed only for local purposes.

Taxes on Personal Property.—Personal property consists of a variety of movable goods, such as clothing, jewelry, books, household furniture, money, stocks, bonds, and mortgages. Most personal property is easily concealed and much of it cannot be valued correctly by tax assessors. In many of the states personal property is valued by its owners for taxation purposes and they are obliged to swear to the correctness of their valuations. The dishonest can easily escape a general tax on personal property. Such a tax is, therefore, often called a tax on honesty. It is evident that states which still retain the general tax on personal property should abolish it retaining only a tax upon

such personal property as cannot be concealed and can be valued fairly well by tax assessors.

A Program of Taxation.—The needs of the Federal Government, as soon as conditions become normal, may be met by the proceeds of the customs duties, excise taxes, an inheritance tax, and an income tax.

The National Tax Association, at its convention at Chicago in 1919, presented *A Model System of State and Local Taxation.* With the exception of an income tax which is recommended for states, though also used by the United States, there is no overlapping with Federal taxation. Doctor Carl C. Plehn, in his *Introduction to Public Finance,* gives a summary of the recommendations, as follows:

"1. A personal income tax. 'Every person having taxable ability should pay a direct tax to the government under which he is domiciled.' 'The tax should be levied upon persons in respect of their entire net incomes, and should be collected only from persons and at places where they are domiciled. It should not be collected from business concerns, either incorporated or unincorporated, since such action would defeat the very purpose of the tax.' Non-residents earning income in or receiving income from sources in a State should not be taxed.

"'2. There should be a tax upon tangible property levied exclusively at the place where such property is located' and 'intangible property of all descriptions be exempt from taxation as property.' The tax-paying ability of such property can be reached in other ways.

"3. That the methods of taxation applied to public service corporations be improved so as to impose an equi-

table burden upon such companies, but no one method was recommended.

"4. A business tax 'levied upon the net income derived from business carried on within the State levying the tax.'

"5. Improved administration involving (*a*) assessment districts large enough to justify the employment of a permanent full time official; (*b*) a term of office long enough to develop efficiency, at least four years; (*c*) power of removal of assessors by the State tax commission; (*d*) a permanent central State tax commission, with broad powers over the entire tax system, State and local."

Exemptions from Taxation.—Churches, charitable institutions, schools and colleges not operated for private gain, literary societies, volunteer fire departments and other associations which are operated for the public welfare, are exempt from taxation. Incomes below a fixed minimum, property of less than a few hundred dollars, and tools of mechanics are exempted from taxation in many states. These exemptions are reasonable and have aroused little opposition. The exemption of public property and bonds of national, state, and local units is also reasonable. At the present time salaries paid by the states and local governments are exempt from the Federal income tax. It does not seem equitable that a public school-teacher should pay no income tax, while a teacher in a private school or college should be taxed, but Federal taxation of state employees is regarded as unconstitutional. Bonds of public-service corporations are sometimes exempt from state taxes. Exemption of any person or of property from taxation means that other persons must pay larger taxes. Exemptions should be allowed only when the public wel-

fare demands them. It is the privilege and duty of citizens to contribute to the public financial needs.

Taxes on Sales.—A tax on sales has been proposed as a substitute for the excess-profits tax, the tax on amusements, and on so-called luxuries. The plan is to place a tax of 1 per cent upon all taxable sales above a total of $6,000 made by any dealer. This tax would, of course, be shifted to the consumer, and if the article changed hands several times before reaching the final consumer, it would increase with every exchange. In the great majority of cases the increase probably would not be over 3 per cent. The arguments in favor of a tax on sales are:

1. It would produce a large revenue—at least $2,000,000,000 a year.

2. It would be paid by the whole body of the people, but in small amounts by each individual.

3. It would be simple in operation, would yield a steady flow of income, and could be collected without much expense.

4. It is claimed that it would reduce the cost of living. The excess-profits tax is now shifted on the consumer and this burden is probably greater than would be the burden of a sales tax.

The chief objection to a sales tax is that it violates the canon of taxation of Adam Smith that says "a tax ought to bear upon people in proportion to their ability to pay." The poor would pay more in proportion to their ability than the rich. This objection would not hold, however, in case the income tax were retained, with its exemption of incomes below $1,000 for unmarried persons and $2,000 for married persons. A 1-per-cent tax on sales was imposed

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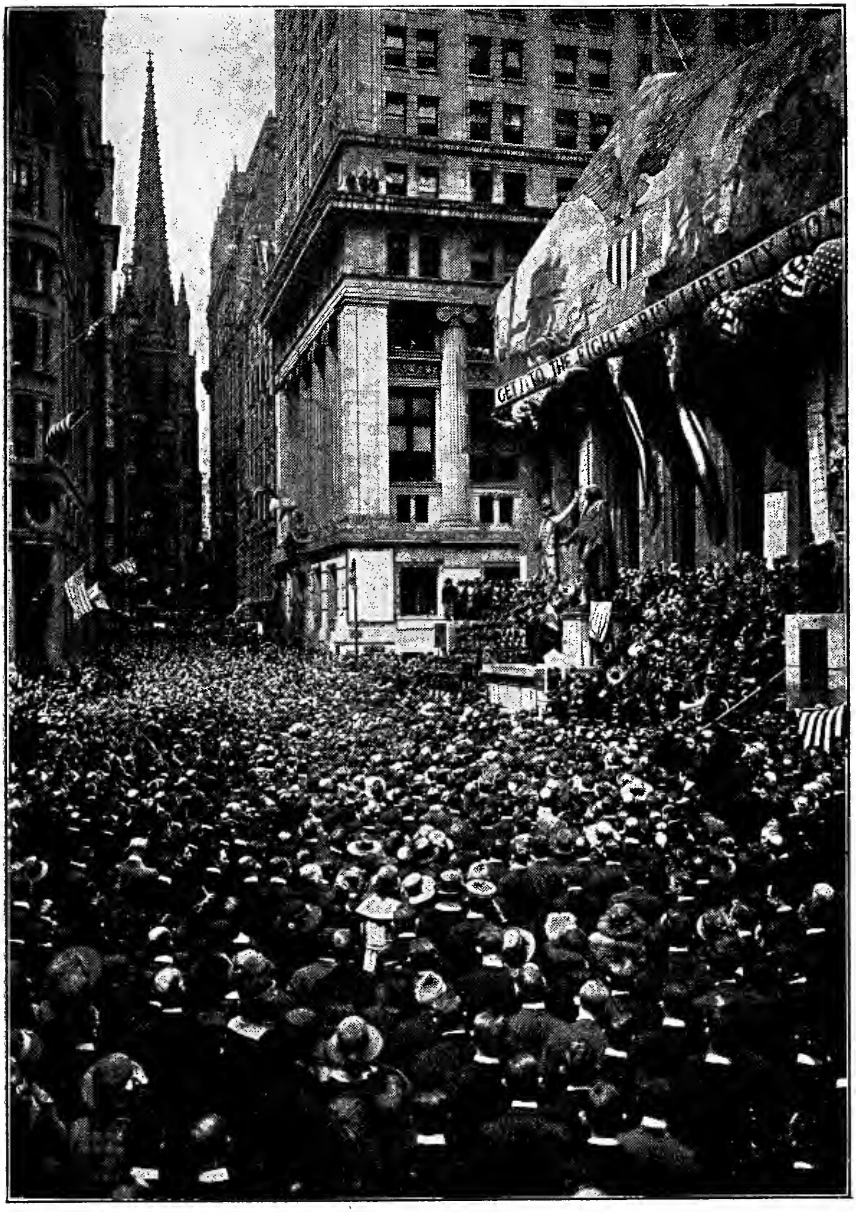
IT'S JUST AS WELL TO REMEMBER WHOM WE'RE GETTING DINNER FOR

Payment for past wars and preparations for possible wars absorb over 80 per cent of the revenue of the United States. The financial argument for disarmament by the great nations is unanswerable.

in the Philippine Islands in 1905 and it is reported to have given general satisfaction.

Public Debts.—The ordinary expenses of government should be paid out of the regular revenues, but there are times when public borrowing properly may be employed. The expenses incident to the building of a great public improvement, like the Catskill Aqueduct, or the Panama Canal, may be met out of the proceeds of a loan, which can be repaid through annual payments into a sinking fund which will equal the amount borrowed at the time the bonds become due. No great public improvements could be made if all of the payment for them had to come out of taxes raised during the years when the work of construction was being done. In a similar way the borrowing of money to finance a war is justified. The war, like a great public improvement, may be for the welfare of future generations and part of the burden should be borne by them.

In a certain sense the present generation must pay for all its expenses. The labor of building the Panama Canal, the stone, cement, and tools used had to be furnished when the canal was being built, and so the labor, the munitions of war, the clothing and food of the soldiers had to be supplied by the people living when the war was being fought. But the money to buy supplies and pay men can be borrowed or raised by taxation. If paid entirely out of the proceeds of taxation, it will raise taxation to such an extent as to discourage industry and weaken the "home front." If a part of the expense is paid by borrowing, that part is advanced by those who subscribe to the bonds and they are repaid later out of the proceeds of



From a photograph by Brown Brothers.

SELLING LIBERTY BONDS IN NEW YORK

The building on the right is the Sub-Treasury. It occupies the site of Federal Hall, where Washington was inaugurated first President of the United States, April 30, 1789. The statue of Washington may be seen in front of the Sub-Treasury. The narrow street in the background is Wall Street, the financial centre of America. At the head of Wall Street is Trinity Church on Broadway, facing the entrance to Wall Street.

taxation. No belligerent in the World War could have paid its expenses out of the proceeds of taxation without arousing serious discontent.

The Liberty and Victory Loans.—Approximately one-third of the expenses of the United States during the war was obtained out of the proceeds of taxation, the remainder was raised through loans. The total increase in the public debt of the United States during the war was as follows:

First Liberty Loan	$1,985,000,000
Second Liberty Loan	3,526,000,000
Third Liberty Loan	3,904,000,000
Fourth Liberty Loan	6,614,000,000
Victory Loan	4,414,000,000
Treasury Certificates	3,736,000,000
War Savings Certificates	911,000,000

At the time the war began the total debt of the United States was only $1,120,000,000. The Liberty and Victory loans were a great success, notwithstanding that thousands bought bonds they could not afford to hold and later by throwing them upon the market lowered the market price of bonds. The price was also depressed by the fact that first-class bonds of private corporations were paying a much larger rate of interest. None the less, thousands of people who never before had owned a bond, purchased bonds of the United States and continue to hold them. They not only secured the best bonds in the world and learned a lesson in saving, but their bonds will become more valuable as time passes. No one who buys and keeps bonds of the United States will ever have reason to regret his investment.

Summary.—Public and private finance differ in three important particulars: (1) Public revenue is designed to equal public expenses; (2) a surplus is not desirable for a state; (3) public finance rests upon the power of compulsion. Public expenses are growing. Taxes may not be expected to fall, but we should see that the government gets full values for the money it spends. The cost of war has been very great. This can, and should, be lessened through international agreements.

The greatest regular source of public revenue is taxation. Adam Smith's four canons of taxation are generally accepted as describing rules to which taxation should conform. Direct taxes are taxes which are finally paid by the person upon whom they are originally levied. Indirect taxes are shifted. Direct taxation is superior to indirect taxation in most respects, but indirect taxation has the advantage of being paid in small instalments by the persons upon whom the burden finally falls. Taxes on imports may be specific, ad valorem, or a combination of the two. Excise taxes are taxes laid upon articles produced within the country. Taxes on incomes have become the most important tax in the United States. These taxes are the fairest of all taxes. Inheritance taxes are employed by both state and national governments. The income from inheritance tax differs from year to year, but the average for a term of years remains the same. Taxes on real estate should be for local purposes. The personal-property tax should be abolished because it cannot be properly collected.

Exemptions from taxation is proper when the public welfare demands it. Public debts may properly be con-

tracted for extraordinary expenses. Regular expenses should be met out of regular sources of income.

TOPICS FOR DISCUSSION, DEBATE, AND SPECIAL REPORTS

1. Get a copy of the budget of your city for the last year. What are the principal items of expense? What changes would you suggest?
2. Should a new park be purchased by a tax on the entire city? By a tax on adjoining property? By a combination of the above? By the sale of city bonds?
3. What direct taxes do you pay? What indirect taxes? What direct taxes does a day-laborer pay? What indirect taxes?
4. Should a man who has no children be taxed to support the public schools? Why? Why should churches be exempt from taxation? What schools pay taxes? Why?
5. Why are Liberty and Victory Bonds the best securities in the world? Why did some of them fall below par? Find the present price of each issue of Liberty and Victory Bonds and explain the difference in their market values.

CHAPTER XXXII

SOCIAL AND ECONOMIC BETTERMENT

The word "Utopia" was introduced into the English language in 1516, when Thomas More published his book bearing that title. Utopia means the land of nowhere. It describes an ideal commonwealth very different from the England of the sixteenth century. England seemed to exist only for the benefit of the rich and powerful. Good food and decent clothing were too expensive for the poor. Tillage had decreased and pastures for the sheep of the rich abbots had supplanted arable land. Disabled soldiers crippled in useless wars were everywhere to be seen. The courts of the rich were thronged with retainers who rendered no useful service, but gratified their lord's love of ostentation. If a man chose to steal rather than starve, he paid the penalty with his life. Frequently a score of victims might be seen hanging from one gallows.

In contrast to the England of his day More pictured the land of nowhere, a country where everything was perfect. In Utopia the people elected their own king and parliament. The Utopians hated war and never engaged in a war of conquest. Education was not confined to one class, but every one was taught to read and write. In Utopia every family had a vote and voting was by ballot. All property belonged to the nation.

This was Sir Thomas More's idea of a perfect commonwealth and it seemed unattainable in any particular. Yet we have arrived at Utopia with the exception of communism. The dream has come true.

Recent Social and Economic Progress

Most of the progress since the days of Sir Thomas has been made in the last one hundred and twenty-five years. In England one hundred years ago, the hours of labor were from twelve to sixteen a day. Wages were so low that every member of a family had to work and the combined wages were scarcely enough to afford a decent living. Women were employed in the mines, frequently harnessed to coal carts like beasts of burden. These carts were dragged through low and narrow passages, where the women had to stoop and crawl on their knees. Child labor was the rule. Pauper children were apprenticed to masters, who put them to work in factories. If a child attempted to escape he was chained to the machine which he operated. Labor organizations were illegal and the working men had no votes. The criminal law showed the cruelty of the time. Two hundred and fifty crimes were punishable by death. Even the stealing of goods to the value of five shillings was a capital offense. There was no popular education.

In America conditions were better, but hours of labor were long and slavery degraded labor. Had any one in the days of George Washington attempted to predict economic and social conditions as they exist in the twentieth century he would have been thought a dreamer.

Were men content with the standard of living which

prevailed a hundred years ago, a few hours' labor each day would produce all the goods needed. The rich had many servants and many costly ornaments, but they lacked the comforts of a modern working man. Joseph Priestley wrote that his mother, some time in the year 1740, required him to return a pin which he found at his uncle's house. She did this to give him "a clear idea of the distinction of property." Pins were not so abundant that one was regarded with indifference. Even so late as 1840 thorns were sometimes used for pins in parts of the United States.

Methods of Economic Progress

There is no reason to doubt that economic progress will be as great in the future as it has been in the past. A larger production of wealth will give more comforts to the people and more time for education and recreation. A larger production of wealth may be secured:

1. *By increasing the supply of available land.* Drainage of swamps, irrigation of arid lands, and opening means of communication with lands now unavailable because of distance are among the means of increasing available land. Much of the land of North America is now unavailable and much more than half of the land of South America is at present unavailable.

2. *By utilizing more fully the forces of nature.* The power of the winds, the water-power afforded by rivers, the force of the tides are as yet almost neglected.

3. *By increasing capital.* This may be done by encouraging savings, by economy in the use of materials, by new inventions, and by making investments safe and therefore more attractive.

4. *By education in the arts and sciences,* thus increasing the efficiency of both labor and capital.

5. *By teaching the dignity of labor and the vice of idleness.*

Increased Production should Benefit All

Every useful member of society should share in the benefits of an increased production of wealth. A high standard of life for laborers and all others should be encouraged. Immigration of undesirable people of whatever race should be prevented. Building and Loan Associations and other agencies to assist people to own their own homes should be encouraged. The housing question will never be completely settled until every family owns its own home. If there is no room in the city, railroads and subways may be constructed to take the people to the country, or the factories may move to the country.

Public art-galleries, museums, libraries, parks, and recreation centres will give to all increased possibilities of education and amusement.

Insurance can be made available to protect the people against the certainties of death and old age, and against the uncertainties of accident, disease, and unemployment.

Education can be extended so that all who wish and can profit by it may have the advantages of higher education.

Though great progress has been made in the past, it is nothing as compared to what the future has in store.

Sir Thomas More would be amazed if he could see the United States in the twentieth century. Perhaps our amazement would be as great could we see the United States in the twenty-first century.

APPENDICES

APPENDIX I

INDUSTRIAL REPRESENTATION PLAN OF THE FACTORY OF THE GOODYEAR TIRE AND RUBBER COMPANY, AKRON, OHIO *

The Council of Industrial Relations, composed of representatives elected by Goodyear men and women, foremen elected by Goodyear foremen, and executives appointed by the Goodyear Factory management, after having thoroughly considered the subject of industrial representation for securing justice to both men and management through co-operative methods, has evolved the following plan for industrial co-operation at Goodyear, and presents this plan to Goodyearites in the sincere belief that its acceptance by management and men of the Goodyear Factory will prove beneficial to all.

1. Executive Powers

All executive powers for operation of the Goodyear Factory shall be vested in the management, and shall not be abridged in any way except in accordance with the legislative powers granted in this Industrial Representation Plan.

2. Legislative Powers

All legislative powers granted in this Industrial Representation Plan shall be vested in an Industrial Assembly of the Goodyear Factory which shall consist of two (2) houses, namely, a Senate and a House of Representatives.

3. The Industrial Assembly

The Industrial Assembly shall be composed of forty (40) Representatives and twenty (20) Senators, elected by the Industrians of the Goodyear Factory, who shall meet separately or jointly, on

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the first Monday in each month in Goodyear Hall. Representatives shall be elected for one year, and Senators shall be elected for two years.

Each Representative and each Senator shall have one vote.

Each House shall vote independently of the other.

Each House shall determine rules for its proceedings and shall keep a record of its proceedings.

4. Unit of Representation—Precinct and District

The Goodyear Factory shall be divided into forty (40) precincts. Precincts shall be determined so as to include substantially an equal number of people, and with due regard to departmental classification of the factory.

Each precinct shall have the right to elect one Representative.

The precincts shall be further arranged into groups of four, and each group shall have the right to elect two Senators.

5. Method of Election and Recall of Senators and Representatives

Election of Senators and Representatives shall be held in the Goodyear Factory annually on the second Monday in October by secret ballot, and the Assembly shall be convened on the first Monday in November. At each annual election there shall be forty Representatives and ten Senators elected, except in the first election, when there shall be twenty Senators elected.

A Representative or Senator may be recalled on petition signed by two-thirds of the voters in his precinct or district, and approved by two-thirds of the House of which he is a member.

Upon severance of employment with the Company, a Representative or Senator shall immediately and automatically cease to hold office.

6. Qualifications of Representatives and Senators

No person shall be a Representative who shall not have attained to the age of twenty-one years and who shall not be an Industrian of Goodyear, and not have had one year's continuous service in the factory immediately prior to date of election.

No person shall be a Senator who shall not have attained to the age of twenty-five years, and who shall not be an Industrian of Goodyear, and not have been in good standing on the pay-roll of

The Goodyear Tire & Rubber Company for five years, the last two of which shall have been a continuous service immediately prior to election.

If vacancies in the seats of Representatives or Senators happen by resignation or otherwise, the one who shall have received the next highest number of votes from the precinct or district in which the vacancy shall have occurred shall fill the vacancy.

7. Qualifications of Voters and Definition of Industrian

A Goodyear Industrian must be eighteen years of age, must be an American citizen, understand the English language, and have a six months' continuous service record in the Goodyear Factory immediately prior to election. Each Goodyear Industrian is entitled to vote.

8. Power and Procedure of the Industrial Assembly

The Articles of Incorporation of The Goodyear Tire & Rubber Company and the laws of the State of Ohio fix the final authority and responsibility for management of the company in its Board of Directors. Therefore, subject only to the right of the Board of Directors to veto or annul, the power of the Industrial Assembly shall have legislative power to make changes in Factory Rules and Regulations which from time to time have been or shall be made by the management as provided in Article 1, on the subject of wag adjustments, working conditions, and the adjustment of grievances in accordance with the following procedure:

Every bill which shall have passed the House of Representatives and the Senate, shall, before it becomes a Factory Rule or Regulation, be presented to the Goodyear Factory Manager. If he approves, he shall sign it, but if not, he shall return it with his objections to the House in which it shall have originated, who shall enter the objections at large upon their record, and proceed to reconsider it. If after such reconsideration, two-thirds of that House shall agree to pass the bill it shall be sent, together with the objections, to the other House, by which it shall likewise be reconsidered, and if approved by two-thirds of that House it shall become a Factory Rule or Regulation. But in all such cases the votes of both Houses shall be determined by yeas and nays, and the names of the persons voting for and against the bill shall be entered on the record of each House respectively. If any bill shall not be returned by the Factory Manager within thirty days (Sun-

days excepted) after it shall have been presented to him, the same shall be a Factory Rule or Regulation in like manner as if he had signed it, unless the Assembly by failure to provide proper means to receive it shall prevent its return, in which case it shall not be a Factory Rule or Regulation.

9. Approval and Veto Powers of the Factory Manager

Every order, resolution, or vote, to which the concurrence of the Senate and House of Representatives may be necessary (except on a question of adjournment), shall be presented to the Factory Manager of the Goodyear Company, and before the same shall take effect shall be approved by him, or being disapproved by him, shall be repassed by two-thirds of the Senate and House of Representatives according to the rules and limitations in the case of a bill.

10. Joint Conferences

On matters of joint interest to men and management, such as wage adjustments, working conditions, and the adjustment of grievances, joint conferences may be called where representatives of the men meet an equal number of representatives of the management. Frequent conferences are desirable for the consideration of constructive suggestions of mutual interest.

11. Joint Conferences—How Formed

The Industrial Assembly shall appoint six (6) Industrians, three from the Senate and three from the House of Representatives, and the Factory Management shall appoint six (6) Industrians to meet as a joint conference. Persons thus selected shall be duly accredited representatives of the Goodyear Factory men and management for consideration of and co-operation upon subjects of mutual interest. The Industrial Assembly shall maintain standing committees composed of three members of each House to facilitate quick action in securing a joint conference.

12. Industrial Representation Plan—How Amended

The Industrial Assembly, whenever two-thirds of both Houses shall deem it necessary, shall propose amendments to this Industrial Representation Plan, which shall be valid to all intents and purposes as a part of this plan when approved by the Factory Manager. In case amendments have been passed by a two-thirds

vote of both Houses over the veto of the Factory Manager, such amendments must be approved by the Board of Directors of The Goodyear Tire & Rubber Company before becoming valid.

13. Oath of Office

Before entering upon his duties, each Representative or Senator shall take and subscribe to the following oath which shall be administered by any officer empowered to administer oaths under the laws of Ohio: "I solemnly swear (or affirm) that I will faithfully support the Constitution and laws of the United States and the State of Ohio and the Industrial Representation Plan of the Goodyear Factory, and that I will to the best of my ability faithfully and conscientiously discharge the duties incumbent on me as a Representative (or Senator) under such plan."

14. Guarantee Against Discrimination

There shall be no discrimination against any Goodyearite on account of membership or non-membership in any labor organization or against any Representative or Senator for action taken by him in performance of his duties as outlined in this Plan.

15. Industrial Representation Plan—How Ratified

This Industrial Representation Plan shall become effective when a majority of the Industrians of the Goodyear Factory and the management of the Goodyear Factory shall have authorized the present Industrial Relations Council to place their signatures hereon.

APPENDIX II

Extracts from advance copy of bulletin prepared by Mr. Don D. Lescohier, Associate Professor of Economics, in charge of Americanization work for the University of Wisconsin. Published by the Extension Division of the University of Wisconsin.

AMERICANIZATION—WHAT IS IT?*

Americanization in the United States, and Canadianization in Canada, differ fundamentally in their spirit, method, and purpose from the efforts of Germany to Germanize Poland, Schleswig-Holstein, and Alsace-Lorraine; of Austria to Austrianize the Czechs and Croats; and of Turkey to suppress the nationalism of the Armenians. The Central Powers tried to crush the national cultures and customs of peoples over whom they had acquired power by force of arms. They continually subjected them to the efforts of conquerors who sought to suppress the language and traditions that had obtained in the acquired territories, and to compel the use of the language, government, and culture of the conqueror.

Americanization has nothing in common with such efforts as these. It is an effort to assist the alien among us to understand, appreciate, and partake of the best in American life and thought. It is an effort to provide facilities that will enable him to become an integral part of America and its life. It is a movement to help him share the privileges and benefits that a democracy offers to its people, and to fit him for its responsibilities as a citizen in a democratic commonwealth. It aims to help him know our national life; to help him make our traditions, heroes, and ideals his; to inspire in him a love for America and what it stands for; to win his heart to the things we love.

But Americanization is more than this. It is as necessary for Americans to understand the peoples who have come to them from foreign lands as for those peoples to become acquainted with America. Every people whose feet have pressed our soil has

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brought to us traditions, customs, capacities, ideals, and personal qualities which are of inestimable value to America. Each race or nationality, when it first came to our shores, had to start at the bottom of the economic ladder. Each one's capacity *was undervalued by the American during the early years of its migration to America*, because it had to rely principally upon common labor for a livelihood while it was learning our language and customs and fitting itself into our national life. The indifference and hardly disguised contempt which a large number of Americans felt toward the Italian or the Slav during the twenty-five years from 1890 to the outbreak of the war, was experienced in earlier years by the Irishman and, in many parts of the country, by the German, Scandinavian, and Belgian. It is as necessary to help the American understand the newcomer and appreciate the contribution which he will make to our national life, as to help the immigrant understand the American.

There is another point which Americans must be taught to remember. Every alien who comes to America comes here *because he believes that America is a better place to live than his homeland.* He comes here hopefully, expectantly, eagerly. He comes here in a receptive mood. The only reason that alien propaganda has been able to retain a hold on *part* of the immigrants, has been that we have failed to provide them with proper educational, industrial, and social opportunities to become a real part of our life. They have not found us responsive, and their enthusiasm has been chilled. They have concluded that we did not care about them. Americanization must teach the American to value the people who have come to us, and cause him to assist the alien to enter into the privileges and duties of America's adopted sons.

Americanization is, then, a process of education, of mutual understanding, of growing together. It cannot be accomplished by any one agency. The public schools can reach some of the adults; the Y. M. and Y. W. C. A., the social settlements, the welfare work of employers have important parts to play; while the university's research work and training of leaders is necessary to provide specialized knowledge and leadership. Improvements in labor conditions, in land laws, in the housing of the poor, and in methods of labor distribution are as important as any of the educational work. They will remove many of the immigrant's causes of bitterness. Community and social centres; women's and civic clubs;

and the aroused interest of churches, parochial schools, fraternal orders and companies engaged in land colonization are all essential to the case. In a word, Americanization is a process of mental and spiritual reconstruction—if we can use the word *spiritual* in a non-religious sense—which must be accomplished by a multitude of forces in our national life. *The essential thing now is that those forces be widely directed* so that they may accomplish the needed result, rather than produce evil results by their misdirected though well-intentioned efforts.

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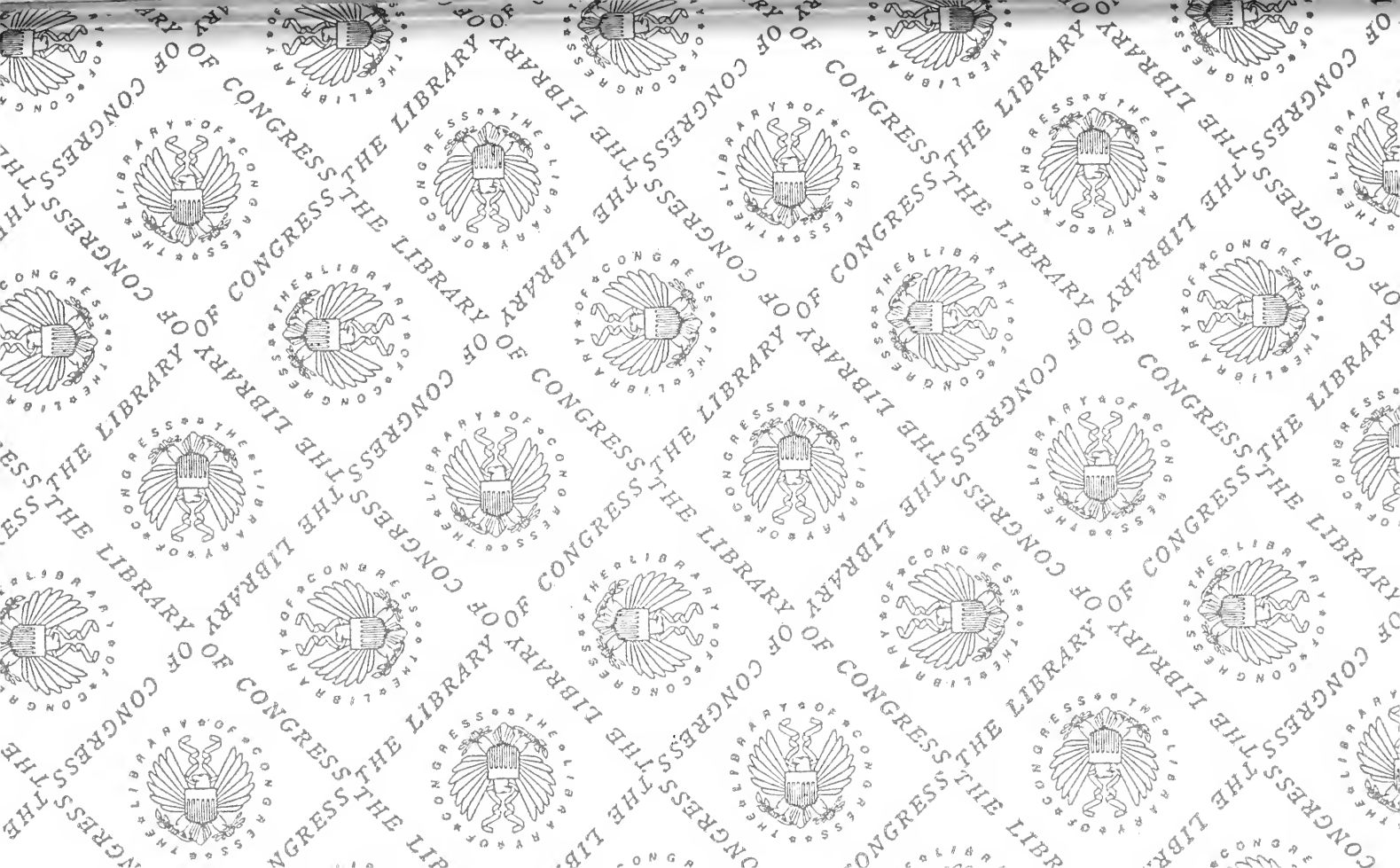
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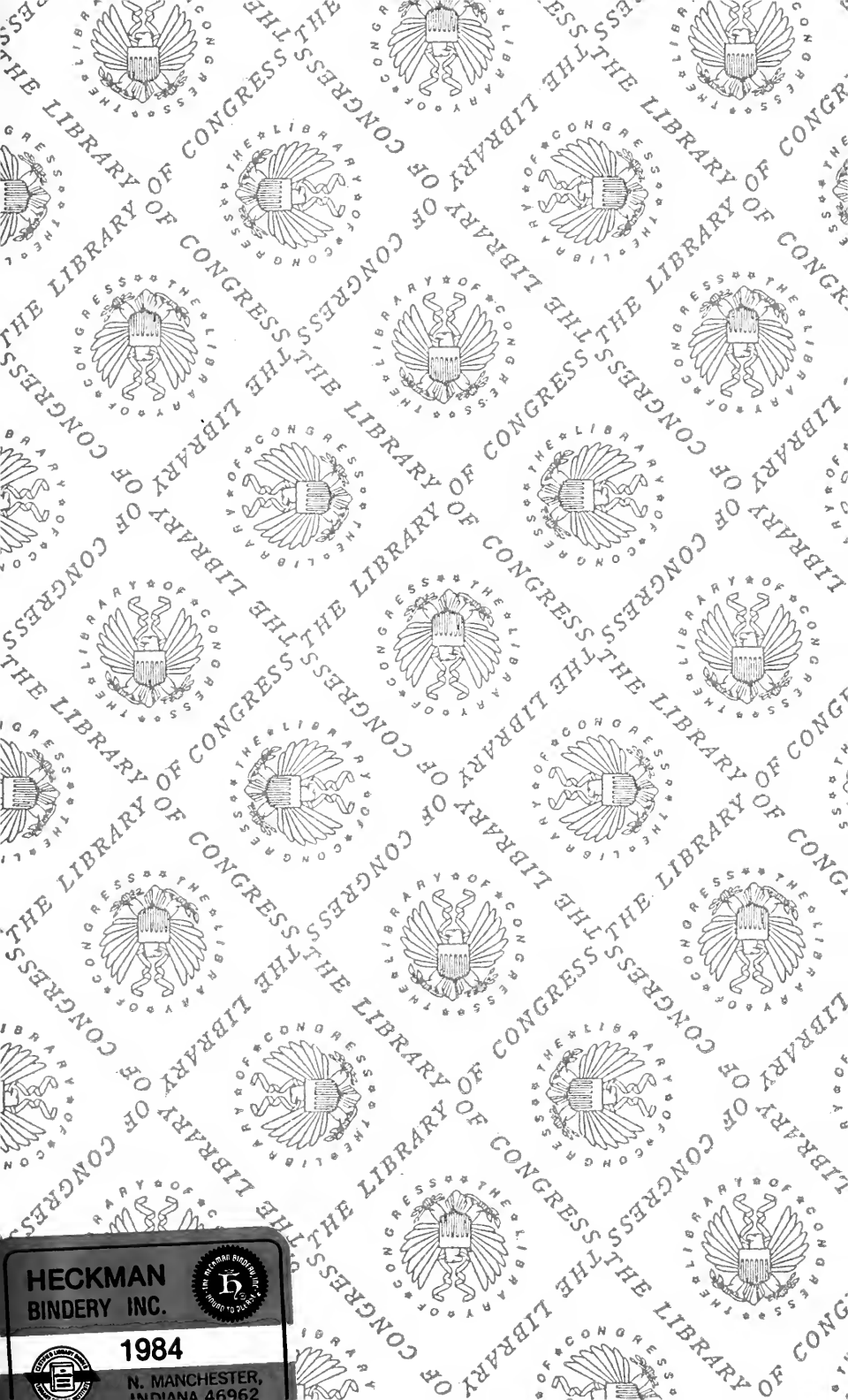

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